

Commentor No. 285: Megan Cornish

Dear Secretary Richardson,

Please honor the Clean-Up Agreement and Shut Down the FFTF Nuclear Reactor:

NO START UPS WITHOUT EXISTING WASTES DISPOSED!
NO CORPORATE WELFARE FOR COMMERCIAL PURPOSES!
ELIMINATE CAUSES OF CANCER RATHER THAN CREATING
NUCLEAR WASTE FOR UNPROVEN CANCER TREATMENTS!
THE PRIMARY MISSION IS UNSTATED - MILITARY - ADMIT IT!
MONEY FOR SAFE JOBS, NOT NUCLEAR PRODUCTION!

Sincerely,

Name MEGAN CORNISH Address 2940 36th Ave S
 City SEATTLE State WA ZIP 98144

Please include my comments in the official record for the Pu-238/FFTF Environmental Impact Statement. Also, please respond to my comments and concerns.

|| 285-1 || 285-2

|| 285-1

285-3

Response to Commentor No. 285

285-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

The Hanford Site has a comprehensive waste minimization and pollution prevention program in place, as summarized in Section 3.4.11.8 of Volume 1, that would govern any proposed site activities.

285-2: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

285-3: DOE notes the commentor's views. However, the purpose of the NI PEIS is to evaluate the environmental impacts of a range of reasonable alternatives to maintaining and enhancing DOE's existing nuclear facility infrastructure to support production of isotopes for medical, research, and industrial uses, production of plutonium-238 for use in future NASA space exploration missions, and U.S. nuclear research and development needs for civilian application. No component of the proposed action is for the purpose of supporting any other defense or weapons-related mission.

Cancers are believed to be caused by a combination of hereditary and environmental factors, including radiological and chemical agents. In ongoing clinical testing, therapeutic radioisotopes have proven effective in treating cancers and other illnesses while minimizing adverse side effects, making their use an attractive alternative to traditional chemotherapy and radiation treatments.

Chapter 4, Volume 1, of the NI PEIS provides an estimate of waste generation and potential human health impacts associated with each of the alternatives proposed for the production of medical, industrial and research isotopes, plutonium-238, and nuclear research and development. Any additional wastes generated in support of these missions would be managed (i.e., treated, stored and disposed) in a safe and environmentally protective

Commentor No. 285: Megan Cornish (Cont'd)

Response to Commentor No. 285

manner and in compliance with all applicable Federal and state laws, regulations, and applicable DOE orders. In terms of potential human health impacts, the NI PEIS analysis indicates that the most likely impacts would not result in additional cancer fatalities among the population surrounding the DOE facilities that may be selected for use.

Consistent with the mandates under the Atomic Energy Act, DOE seeks to fulfill its responsibility to ensure that there is a reliable supply of isotopes in the U.S. to meet future demand. DOE does not subsidize commercial producers. DOE encourages the commercial sector to privatize the production of medical isotopes in certain instances, and does this by turning over production of certain isotopes to commercial entities once DOE has established that commercial production is economically viable. Section 1.2.1 of Volume 1 has been revised to clarify DOE's isotope production role and other producers' capabilities to fulfill U.S. isotope needs.

Commentor No. 286: Tom Burke

Thank you. My name is Tom Burke. I am a resident of Kennewick Washington and I would like to make a few comments relative to the potential restart of the Fast Flux Test Facility.

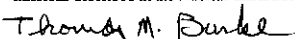
The FFTF was designed as a large test reactor and thus has many features that make it ideal for the multi-mission role proposed by the Nuclear Infrastructure PEIS. It has a test volume that is significantly larger than all other operational Department of Energy reactors combined and it has a much higher neutron flux density than any other DOE reactor. The FFTF produces neutrons in the high-energy spectrum; these are called fast neutrons (most reactors produce much lower energy, or thermal, neutrons). The fast neutrons produced in FFTF can be "moderated" to virtually any desired energy level. This is extremely important for supporting the variety of missions identified in the NI PEIS. For example, some medical isotopes can only be produced by irradiating targets with high-energy neutrons while others require thermal neutrons. Finally, the FFTF incorporates many features not found in other reactors. This includes, for example, the ability to install specially instrumented and controlled test assemblies into the core. This capability was demonstrated and used many times during the previous ten years of outstanding operation of the facility.

Let me say more about the outstanding design and operation of the FFTF. It is the only DOE reactor designed to modern commercial reactor standards. For example, it includes a containment building that was designed, constructed and tested to very stringent leak rate criteria. It incorporates a sophisticated reactor shutdown system designed with both diversity and redundancy in its operation. Finally, because emergency core cooling is provided by natural circulation of the coolant, no emergency powered equipment is required to perform this critical function. Due to these, and other design and safety features, the probability of a severe accident at the FFTF is much lower than at a typical commercial power reactor.

Prior to its initial operation, the Nuclear Regulatory Commission performed a thorough review of the FFTF design and Safety Analysis Report. This review concluded that the FFTF met modern reactor design and safety standards. Although the FFTF is not licensed by the NRC, this is the same review process that all commercial reactors undergo to obtain a license. It is expected that the NRC would be involved in restart of the facility in a similar manner.

During its ten years of operation, the FFTF achieved an impeccable operating and safety record, better than that compiled by commercial reactors over the same time period. The plant received many awards recognizing this industry standard setting operational and safety performance. This tradition of operational excellence is an ingrained quality in the experienced staff that is committed to continue this performance when the facility is restarted.

The FFTF is the only existing DOE reactor that can fully support all three of the important missions described in the Nuclear Infrastructure PEIS. The other existing facilities, even taken together, can only partially support these missions. The new reactor and new accelerator options may be able to meet most of the needs, but there are significant technical and cost issues and uncertainties associated with the concepts described in the PEIS. So the answer is clear. Restarting the FFTF is the only real option for successfully supporting the combination of missions described in the Nuclear Infrastructure PEIS.


Thomas M. Burke
7807 W. 12th Ave.
Kennewick, WA
99338

Response to Commentor No. 286

286-1

286-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 287: Kathleen Myers

Draft PEIS Comment Form

Canada is selling isotopes for env health
tenth the cost, adding nothing to high level
waste and taking nothing from cleanup funds.

287-1

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

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7/12/00

Response to Commentor No. 287

287-1: The United States currently purchases approximately 90 percent of its medical radioisotopes from foreign producers, most notably Canada. However, Canada only supplies a limited number of economically attractive commercial isotopes (primarily molybdenum-99), and it does not supply research isotopes or the diverse array of medical and industrial isotopes considered in the NI PEIS. As such, reliance on Canadian sources of isotopes to satisfy projected U.S. isotope needs would not meet DOE's mission requirements. Section 1.2.1 of Volume 1 has been revised to clarify DOE's isotope production role and other producers' capabilities to fulfill U.S. isotope needs.

The proposed action would not have an impact on the cleanup missions at the candidate sites. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws, regulations and applicable DOE orders.

Commentor No. 288: Anonymous

Draft PEIS Comment Form

I find the DOE's actions regarding restart of the FFTF to be utterly despicable. We do not need this. We do not need more waste.

The way the DOE has attempted to hide critical information from the public is equally despicable.

We need to clean up Hanford, not make it worse.

The DOE's actions has contributed to my growing belief that we no longer live in a democracy.

Please listen to the people not corporations and bought-off politicians. Do not restart FFTF.

Thank you.

Alternative 5 - permanent deactivation is the only safe option.

Nuclear nonproliferation concerns were not even addressed in the EIS.

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- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

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7/12/00

Response to Commentor No. 288

288-1: Management of wastes that would be generated under implementation of Alternative 1, Restart FFTF, is discussed in Section 4.3 of Volume 1 (e.g., see Section 4.3.1.1.13). Section 4.3.1.1.13 was revised to clarify that, the Hanford waste management infrastructure is analyzed in this PEIS for the management of waste resulting from FFTF restart and operation. This analysis is consistent with policy and DOE Order 435.1, that DOE radioactive waste shall be treated, stored, and in the case of low-level waste, disposed of at the site where the waste is generated, if practical; or at another DOE facility. However, if DOE determines that use of the Hanford waste management infrastructure or other DOE sites is not practical or cost effective, DOE may issue an exemption under DOE Order 435.1 for the use of non-DOE facilities (i.e., commercial facilities) to store, treat, and dispose of such waste generated from the restart and operation of FFTF. In addition, Section 4.3.3.1.13 and 4.4.3.1.13 also address the potential impacts associated with the waste generated from the target fabrication and processing in FMEF and how this waste would be managed at the site.

288-2: This NI PEIS has been prepared in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR Parts 1500 through 1508 and 10 CFR Part 1021), respectively. The environmental impacts of reasonable alternatives to fulfill the requirements of the missions were disclosed and evaluated in the NI PEIS. DOE made every effort to obtain, analyze, and disclose all required information to make a decision on expanding nuclear infrastructure. Further, DOE evaluated each environmental resource area in a consistent, unbiased manner across all the alternatives to allow a fair comparison among the various alternatives.

288-3: DOE notes the commentor's concerns regarding the existing cleanup mission. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

Commentor No. 288: Anonymous (Cont'd)

Response to Commentor No. 288

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

The Hanford Site has a comprehensive waste minimization and pollution prevention program in place, as summarized in Section 3.4.11.8 of Volume, that would govern any proposed site activities.

288-4: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

288-5: DOE prepared a separate Nuclear Infrastructure Nonproliferation Impact Assessment to provide additional pertinent information to the Secretary of Energy so that he may make an informed decision with respect to the alternatives presented in the NI PEIS. Such an ancillary document need only be made available to the public prior to any decision being made under CEQ regulations (40 CFR Part 1505.1(e)). Nevertheless, DOE mailed this document to about 730 interested parties on September 8, 2000. The report was made available immediately upon release on the NE web site (<http://www.nuclear.gov>) and in the public reading rooms. DOE has also provided a summary of the Nuclear Infrastructure Nonproliferation Impact Assessment in Appendix Q in the Final NI PEIS.

Commentor No. 289: Terry Dunsmore

Draft PEIS Comment Form

The DOE has a primary responsibility in Washington State — to clean up the existing wastes at the Hanford facility. The citizens of Washington care very much about this issue, given the fact that it directly affects our health and the future of this region.

We deserve to have a say about the place where we live; we deserve the right to choose to have no further production at the Hanford facility. Washington is already inundated with CANCER-CAUSING wastes — it is ludicrous to suggest that we need to poison a significant sector of the U.S. population in order to fund private research or NASA systems, when we should 'redirect our efforts' toward developing alternative energy systems.

Radiation causes cancer. This is unacceptable on every level, and I pray the D.O.E. considers alternative energy systems before this debate necessitates a reorganization of the infrastructure of the D.O.E.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

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E-mail (optional): _____

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E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 289

289-1

289-1: Worker and public health and safety are of paramount and primary importance to the DOE. Restoration of the Hanford Site and waste management activities are the primary missions at Hanford. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

The environmental impacts associated with operation of the FFTF and support facilities at Hanford during normal operations and from postulated accidents are presented and discussed in Section 4.3 of the NI PEIS. All impacts to human health and to ecological resources would be small in the immediate area of the Hanford Site and negligible at all distant locations.

289-2

289-2: The commentor's support of alternative energy systems is noted. Issues of research and development of alternative energy sources are beyond the scope of this Nuclear Infrastructure EIS. Other offices of DOE are responsible for the research and development of alternative energy sources. The stated missions to be addressed in this EIS, which include the production of medical and industrial isotopes, the production of plutonium-238, and nuclear research and development, can currently only be met using nuclear reactor or accelerator technologies.

Commentor No. 290: J. L. Moore

Draft PEIS Comment Form

With a confirmed 69 tanks leaking in Hanford, it's clear that the Columbia River is in danger of receiving many dangerous cancer causing agents. Starting up the FFTF reactor would add waste to these tanks - not to mention taking a lot of funds and focus away from cleaning up waste. What really bothers me about the DOE continuing to cite the FFTF as a possible candidate for the noble mission of curing cancer is the hypocrisy behind it. If you want to cause cancer, start the reactor up and produce more cancer causing waste. If you want to stop cancer, well an ounce of prevention is worth a pound of cure - so shut down FFTF and prevent more cancer causing radioactive materials from getting into the environment. But please stop lying and saying that FFTF is a viable source of radioisotopes when particle accelerators are a far superior method of production and when your OWN BLUE

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

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E-mail (optional):

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NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Response to Commentor No. 290

290-1: The restart of FFTF would not impact the schedule or available funding for existing cleanup activities at Hanford nor would it generate high-level radioactive waste. The additional radioactive waste that would be generated from the restart of FFTF (e.g., low-level radioactive waste) would not be stored in the high-level radioactive waste tanks located at Hanford. As identified in Section 4.3.1.1.13 of the NI PEIS, the restart of FFTF would generate about 63 cubic meters of additional radioactive waste (e.g., solid low-level radioactive waste) annually, in addition to nonhazardous wastes. This would account for about 2,205 cubic meters of additional radioactive waste to be generated over the 35-year period of nuclear infrastructure operations and is small in comparison to the waste generated by current Hanford activities. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision.

FFTF is approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to groundwater. As indicated in analyses presented in Chapter 4 of Volume 1 (e.g., Sections 4.3.1.1.4, 4.3.3.1.4, 4.4.3.1.4, 4.5.3.2.4, and 4.6.3.2.4), there would be no discernible impacts to groundwater or surface water quality at Hanford from operation of Hanford facilities that would support the nuclear infrastructure missions described in Section 1.2 of Volume 1.

290-2: DOE notes the commentor's opposition to Alternative 1, Restart FFTF. The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

Commentor No. 290: J. L. Moore (Cont'd)

RIBBON MEDICAL ADVISORY COMMITTEE HAS
RECOMMENDED THAT FFTF IS NOT A VIABLE
LONG-TERM SOURCE OF RADIOISOTOPES! Please
stop making this poison and putting it into
the environment. No space mission or political rhetoric
masquerading as a medical mission can justify the
cancer that radioactive materials will cause.
Please shut down FFTF - it's good karma.

Fold on lines and fasten with tape

Place
stamp
here

Colette E. Brown, NE-50
U.S. Department of Energy
19901 Germantown Road
Germantown, MD 20874

290-4
(Cont'd)

290-3

290-5

Response to Commentor No. 290

- 290-3:** Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1 (which includes restart of FFTF), including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small.
- 290-4:** The Nuclear Energy Research Advisory Committee (NERAC) subcommittee for Isotope Research and Production Planning, reviewed various DOE and industry accelerators and nuclear reactors including FFTF. The review covered both the research and production capabilities in meeting a set list of isotopes. The commentor's reference to "blue ribbon medical advisory committee recommendation," is the above subcommittee's conclusion. The conclusions presented in the "NERAC Subcommittee for Isotope Research and Production Planning Final Report, April 2000" regarding the suitability of the Fast Flux Test Facility (FFTF) to produce research isotopes in a timely and cost-efficient manner were made in the context of the facility producing research isotopes as its sole mission. DOE agrees that the FFTF's large size and configuration are not particularly well suited for the singular purpose of producing small quantities of various research isotopes. However, sustained operation of the FFTF for the production of both research and commercial isotopes would be viable if operated in concert with producing plutonium-238 and conducting nuclear energy research and development for civilian applications. As the NERAC report states: "In limited instances, the DOE possesses unique resources, e.g., the high flux of fast neutrons and large irradiation volume in FFTF, that could be utilized for the production of some radioisotopes, but is best suited for commercial interests who might consider its use for isotope production". In recognition of these constraints on its operational feasibility, the NIPERIS only evaluates use of the FFTF when coupled with the other proposed missions. While some existing reactors may possess the potential capability or capacity to support research isotope production, as suggested in the NERAC report, it is unlikely that reliable, increased production of these isotopes to support projected needs could be accomplished without disturbing the existing missions of these facilities.

Commentor No. 290: J. L. Moore (Cont'd)

Response to Commentor No. 290

DOE has taken the expert panel and NERAC recommendations under consideration in developing the range of alternatives evaluated in the NI PEIS. These reports were made available to the public at the NI PEIS public information centers and on the internet at www.nuclear.gov.

290-5: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

Commentor No. 291: Margaret Jean Tuthill

Draft PEIS Comment Form

I associate myself with the comments from City Councilmember Nick Seaton. The city of Seattle has gone on record as opposed to the re-start of the FFTF nuclear reactor. I agree with the position of the City of Seattle. I associate myself also with the comments of City Councilmember Heidi Weiss and Congressman Jim McDermott.

You have not told us what you will do with the waste that would be produced by the FFTF.

Your own House subcommittee has said that FFTF would not be suitable for production of medical isotopes. Why did Mr. Brown not make that clear in his presentation?

Your analysis of the risk from an accident is absurd sounding to me.

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- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

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NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Response to Commentor No. 291

291-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

291-2: Management of wastes that would be generated under implementation of Alternative 1, Restart FFTF, is discussed in Section 4.3 of Volume 1 (e.g., see Section 4.3.1.1.13). Section 4.3.1.1.13 was revised to clarify that, the Hanford waste management infrastructure is analyzed in this PEIS for the management of waste resulting from FFTF restart and operation. This analysis is consistent with policy and DOE Order 435.1, that DOE radioactive waste shall be treated, stored, and in the case of low-level waste, disposed of at the site where the waste is generated, if practical; or at another DOE facility. However, if DOE determines that use of the Hanford waste management infrastructure or other DOE sites is not practical or cost effective, DOE may issue an exemption under DOE Order 435.1 for the use of non-DOE facilities (i.e., commercial facilities) to store, treat, and dispose of such waste generated from the restart and operation of FFTF. In addition, Section 4.3.3.1.13 and 4.4.3.1.13 also address the potential impacts associated with the waste generated from the target fabrication and processing in FMEF and how this waste would be managed at the site.

291-3: The conclusions presented in the NERAC Subcommittee for Isotope Research and Production Planning Final Report, April 2000 regarding the suitability of FFTF to produce research isotopes in a timely and cost-efficient manner were made in the context of the facility producing research isotopes as its sole mission. It would not be cost effective to restart FFTF for the singular purpose of producing small quantities of various research isotopes. However, sustained operation of FFTF for the production of larger quantities of both research and commercial isotopes would be viable if operated in concert with producing plutonium-238 and conducting nuclear energy research and development for civilian applications. As the NERAC report states: "In limited instances, the DOE possesses unique resources, e.g., the high flux of fast neutrons and large irradiation volume in FFTF, that could be utilized for the production of some radioisotopes, but is best suited for commercial interests who might consider its use for isotope production." In recognition of these constraints on its operational feasibility, the NI PEIS only evaluates the use of FFTF when coupled with the other stated missions. While some existing reactors may possess the potential capability or capacity to support research isotope production, as suggested in the NERAC report, it is unlikely that reliable, increased production of these isotopes to

Commentor No. 291: Margaret Jean Tuthill (Cont'd)

Response to Commentor No. 291

support projected needs could be accomplished without impacting the existing missions of these facilities.

DOE has taken the Expert Panel and NERAC report recommendations under consideration in developing the range of alternatives evaluated in the NI PEIS. These reports were made available to the public at the NI PEIS public information centers and on the Internet at <http://www.nuclear.gov>.

- 291-4:** The NI PEIS accident risk analysis was conducted in a manner consistent with the “Recommendations for the Preparation of Environmental Assessments and Environmental Impact Statements” DOE Office of NEPA Oversight, May 1993. Sections 4.2-4.6 of Volume 1 provide the results of the evaluation of potential health impacts that would be expected to result from implementation of the alternatives, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with each alternative would be small.

Commentor No. 292: Donn Colby

Draft PEIS Comment Form

As a physician, I know the importance of nuclear materials for medical research and clinical treatment. The DOE has looked for a private contractor to use PTF for the production of medical isotopes and has been unable to find one. Medical isotope production at Hanford is not commercially viable. There is no shortage of medical isotopes. More than enough are available from current sources, mostly foreign, which produce them cheaper than they could be produced at any US facility.

292-1

The primary mission at Hanford is now to clean up the most contaminated nuclear site in the Western world. Any new production mission will have to add to the load of nuclear waste at the site and will make clean up harder and more prolonged.

292-2

It is time, after years and years on stand-by, to develop a clean mission yet developed, to shut down the PTF.

292-3

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7/12/00

Response to Commentor No. 292

292-1: DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings.

DOE acknowledges that other manufacturers can produce certain isotopes at lower costs. In fact, the United States currently purchases approximately 90 percent of its medical isotopes from foreign producers, most notably Canada. However, Canada only supplies a limited number of economically attractive commercial isotopes (primarily molybdenum-99), and it does not supply research isotopes or the diverse array of medical and industrial isotopes considered in the NI PEIS. As such, reliance on Canadian sources of isotopes to satisfy projected U.S. isotope needs would not meet DOE's mission requirements. Section 1.2.1 of Volume I has been revised to clarify DOE's role and other producers' capabilities in fulfilling U.S. isotope needs.

292-2: DOE notes the commentor's concerns regarding ongoing activities to remediate the existing contamination at Hanford. Although beyond the scope of this NI PEIS, the Hanford Site environmental restoration activities are high priority to DOE and are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

Commentor No. 292: Donn Colby (Cont'd)

Response to Commentor No. 292

Management of wastes that would be generated under implementation of Alternative 1, Restart FFTF, is discussed in Section 4.3 of Volume 1 (e.g., see Section 4.3.1.1.13). Section 4.3.1.1.13 was revised to clarify that the Hanford waste management infrastructure is analyzed in this PEIS for the management of waste resulting from FFTF restart and operation. This analysis is consistent with policy and DOE Order 435.1, that DOE radioactive waste shall be treated, stored, and in the case of low-level waste, disposed of at the site where the waste is generated, if practical; or at another DOE facility. However, if DOE determines that use of the Hanford waste management infrastructure or other DOE sites is not practical or cost effective, DOE may issue an exemption under DOE Order 435.1 for the use of non-DOE facilities (i.e., commercial facilities) to store, treat, and dispose of such waste generated from the restart and operation of FFTF. In addition, Section 4.3.3.1.13 and 4.4.3.1.13 also address the potential impacts associated with the waste generated from the target fabrication and processing in FMEF and how this waste would be managed at the site.

292-3: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

Commentor No. 293: Marianne Sullivan

Draft PEIS Comment Form

Re starting FFTF diverting funding and attention from clean up at Hanford. We very concerned that we continue to debate this issue, meanwhile the Columbia River grows increasingly contaminated! The wildfires and release of plutonium this summer should be a wake up call to DOE and the public. We are on the brink of impending disaster at Hanford. Meanwhile DOE fails to meet cleanup milestones.

To play on people's sympathies by grafting FFTF restart on the issue of providing medical care is dishonest and a ploy. The public does not trust DOE - you have a significant credibility problem. You've posted the most contaminated site in the western hemisphere. Two accidents in the last 3 years have exposed citizens to plutonium in the air. DOE lied about the exposure.

We are fed up with this! We don't want to live in fear of another accident at Hanford. Clean it up! Don't restart FFTF!!!

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

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7/12/00

Response to Commentor No. 293

293-1: DOE notes the commentor's concerns regarding the existing cleanup mission and migration of contaminants to the Columbia River. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

293-1

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

The Hanford Site has a comprehensive waste minimization and pollution prevention program in place, as summarized in Section 3.4.11.8 of Volume 1, that would govern any proposed site activities.

No radioactive materials were "released" in the Hanford Wildfires of 2000. Wildfires did resuspend some materials already in the environment. The resuspended materials were low, slightly above natural background levels. The low levels required several days of analysis to quantify.

The Columbia River does not continue to grow increasingly contaminated from Hanford activities. Steady and consistent progress in restoring the Hanford Site is documented in annual reports. These are available at www.hanford.gov.

293-2: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

Commentor No. 294: Erin Jeziorski

Response to Commentor No. 294

Draft PEIS Comment Form

The Fast Flux Test Facility must be shut down NOW! You are wasting precious time and resources while the future of the Columbia River and public are put at risk. This is what you must put at the forefront of your decision making process in restarting FFTF:

- ① How many lives are at risk because millions of dollars have been diverted from cleanup to maintaining FFTF on hot standby?
- ② How many more jobs will be created by cleaning up the leaking tanks & unlined burial grounds instead of maintaining and restarting FFTF?
- ③ What precious ecological habitats are being knocked off balance because of the waste created and stored at Hanford from restarting FFTF?
- ④ How many risks are associated with transport of plutonium to the FFTF especially through a major port such as the Puget Sound?

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

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7/12/00

294-1

294-2

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294-4

294-1: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF and concern for the future of the Columbia River. FFTF is approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to groundwater. As indicated in analyses presented in Chapter 4 of Volume 1 (e.g., Sections 4.3.1.1.4, 4.3.3.1.4, 4.4.3.1.4, 4.5.3.2.4, and 4.6.3.2.4), there would be no discernible impacts to groundwater or surface water quality at Hanford from operation of Hanford facilities that would support the nuclear infrastructure missions described in Section 1.2 of Volume 1.

294-2: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The proposed alternatives would not have an impact on Hanford cleanup activities.

Ecology, EPA, and DOE agreed to a change in the Tri-Party Agreement to place the milestones for FFTF's permanent deactivation in abeyance until the DOE reaches a decision on FFTF's future. Public meetings were held on this formal milestone change. The NI PEIS missions would not have an impact on Hanford cleanup activities.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

The Hanford Site has a comprehensive waste minimization and pollution prevention program in place, as summarized in Section 3.4.11.8 of Volume 1, that would govern any proposed site activities.

Commentor No. 294: Erin Jeziorski (Cont'd)

Response to Commentor No. 294

The environmental consequences associated with each alternative were assessed in Chapter 4 of Volume 1 of the PEIS. The socioeconomic impacts associated with each alternative were presented in Chapter 3 of Volume 1.

294-3: The NI PEIS addressed wastes produced for each alternative, as well as cumulative impacts related to waste production. The Hanford waste management infrastructure was analyzed in the NI PEIS (see Section 4.8.3.4 of Volume 1). This analysis determined that it is unlikely that there would be major impacts (including those to ecological habitat) at Hanford because sufficient capacity would exist to manage the site wastes and none of the NI PEIS alternatives would generate more than a relatively small amount of additional waste at Hanford.

294-4: Alternative 1 does postulate that DOE might decide at some point to import mixed oxide fuel from Europe to fuel FFTF. At this time, however, DOE has not proposed to import this fuel through any specific port. If DOE ultimately decides to import fuel from Europe, it would perform a separate NEPA analysis to select a port. This review would address all relevant potential impacts of overseas and inland water transportation, shipboard fires, package handling, land transportation, as well as safeguards and security associated with the import of SNR-300 mixed oxide fuel through a variety of specific candidate ports on the east and west coasts. It would consider all public comments, including local resolutions, concerning the desirability of bringing mixed oxide fuel into the proposed alternative ports.

In the event that DOE decides to enhance its nuclear infrastructure, it would not expose any population to high, unacceptable risks under any alternative. Any transportation activities that would be conducted by DOE would comply with U.S. Nuclear Regulatory Commission and U.S. Department of Transportation regulations. Associated transatlantic shipment would comply with International Atomic Energy Agency requirements. In Section J.6.2, DOE reviewed the potential maximum impacts from the marine transportation of mixed oxide fuel from Europe to a representative military port, Charleston, South Carolina, and overland transportation to Hanford. Also in that section, a bounding analysis demonstrates that the maximum potential radiological risks to the surrounding public from mixed oxide fuel shipments would be extremely small (e.g., less than 1 chance in a trillion for a latent cancer fatality per shipment from severe accidents at docks and in channels and less than 1 chance in 50 billion for a latent cancer fatality per shipment from overland highway accidents).

Commentor No. 295: Margaret T. Swartzman

Response to Commentor No. 295

Draft PEIS Comment Form

Dear Secretary
As Rodman Fitzhaber wrote you;
so articulately, the citizens of Washington
and Oregon are angry that the tri-state
agreed not to clean up nuclear waste at
Hanford has not occurred and that
money set aside for that have been
sequestered - just to keep FFTF on standby.
He raised the points that there is
no compelling need for medical isotopes,
Canadian sources should be sufficient.
He criticized the draft EIS disregarding all
international sources + domestic alternatives
for plutonium-238.

I am strongly urging you to take
action and shut down the FFTF.
Please include in the EIS the cost
of clean up of the FFTF in start up costs!
Please include and acknowledge
the danger of transporting high grade
plutonium through Puget Sound.

The lives and health of citizens are
in your hands. Please do not let greed
guide you in further delaying and shelving.
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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

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7/12/00

295-1

295-2

295-3

295-4

295-5

295-1: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. Ecology, EPA, and DOE agreed to a change in the Tri-Party Agreement to place the milestones for FFTF's permanent deactivation in abeyance until the DOE reaches a decision on FFTF's future. Public meetings were held on this formal milestone change.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

295-2: The NI PEIS evaluates the environmental impacts of a range of reasonable alternatives for maintaining and enhancing DOE's existing nuclear facility infrastructure to support production of isotopes for medical research, and industrial uses, production of plutonium-238 for use in future NASA space exploration missions, and U.S. nuclear research and development needs for civilian application. In addition to restarting the FFTF, the NI PEIS also evaluates alternatives that would either employ the use of existing facilities or rely on the construction of new facilities.

DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic

Commentor No. 295: Margaret T. Swartzman (Cont'd)

Response to Commentor No. 295

applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings.

The United States currently purchases approximately 90 percent of its medical radioisotopes from foreign producers, most notably Canada. However, Canada only supplies a limited number of economically attractive commercial isotopes (primarily molybdenum-99), and it does not supply research isotopes or the diverse array of medical and industrial isotopes considered in the NI PEIS. As such, reliance on Canadian sources of isotopes to satisfy projected U.S. isotope needs would not meet DOE's mission requirements. Section 1.2.1 of Volume 1 has been revised to clarify DOE's isotope production role and other producers' capabilities to fulfill U.S. isotope needs.

DOE could purchase plutonium-238 from Russia; however, for supply reliability reasons and concern of nuclear nonproliferation, DOE's preference is to establish a domestic plutonium-238 production capability. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

- 295-3:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.
- 295-4:** Decommissioning FFTF, including associated costs and cleanup, is not within the scope of the NI PEIS. Before decommission activities were undertaken, DOE would prepare the appropriate environmental documentation to address the associated environmental impacts. Cost assessments would also be prepared.

DOE remains committed to cleaning up the Hanford Site independent of the ultimate decision on FFTF. The amounts of wastes associated with decommissioning FFTF would be small. The schedule for cleaning up these other wastes would not be affected if FFTF were restarted.

Commentor No. 295: Margaret T. Swartzman (Cont'd)

Response to Commentor No. 295

295-5: Alternative 1 does postulate that DOE might decide at some point to import mixed oxide fuel from Europe to fuel FFTF. At this time, however, DOE has not proposed to import this fuel through any specific port. If DOE ultimately decides to import fuel from Europe, it would perform a separate NEPA analysis to select a port. This review would address all relevant potential impacts of overseas and inland water transportation, shipboard fires, package handling, land transportation, as well as safeguards and security associated with the import of SNR-300 mixed oxide fuel through a variety of specific candidate ports on the east and west coasts. It would consider all public comments, including local resolutions, concerning the desirability of bringing mixed oxide fuel into the proposed alternative ports.

In the event that DOE decides to enhance its nuclear infrastructure, it would not expose any population to high, unacceptable risks under any alternative. Any transportation activities that would be conducted by DOE would comply with U.S. Nuclear Regulatory Commission and U.S. Department of Transportation regulations. Associated transatlantic shipment would comply with International Atomic Energy Agency requirements. In Section J.6.2, DOE reviewed the potential maximum impacts from the marine transportation of mixed oxide fuel from Europe to a representative military port, Charleston, South Carolina, and overland transportation to Hanford. Also in that section, a bounding analysis demonstrates that the maximum potential radiological risks to the surrounding public from mixed oxide fuel shipments would be extremely small (e.g., less than 1 chance in a trillion for a latent cancer fatality per shipment from severe accidents at docks and in channels and less than 1 chance in 50 billion for a latent cancer fatality per shipment from overland highway accidents).

Commentor No. 296: Mary Eccon Smith

Draft PEIS Comment Form

I am strongly opposed to Restarting the FFTF at Hanford. The draft ~~the~~ EIS was not adequately looked at the dangers inherent in restarting the FFTF. In addition to this, I have seen no reputable source that states that this facility is needed for the production of medical isotopes. The physicians for Sound Responsibility, a group of highly intelligent and reputable individuals, have given me a strong opposing the restart of FFTF. I see no reason to make new waste at Hanford when we haven't cleaned up the mess we already have - especially for something we don't need. The draft statement also does not address the case of restarting the FFTF in what would be done with the wastes - another concern I have is that the EIS did not take into consideration the medical blue ribbon recommendation that the FFTF was not a long term viable source of medical research radioisotopes. It escapes my logic as to why ~~you~~ the DOE would go against the blue ribbon committee unless there is some other reason someone is talking about.

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

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7/12/00

Response to Commentor No. 296

- 296-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.
- 296-2:** DOE notes the concerns expressed in the comment on the potential impacts of restarting the FFTF. Assessments of all potential environmental impacts associated with restart of the FFTF have been performed and the results presented in Section 4.3 of the NI PEIS. The assessments include detailed analyses of a wide spectrum of postulated accidents. The risks associated with operating the FFTF are shown to be small.
- 296-3:** DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings. Section 1.2.1 of Volume 1 was revised to incorporate this information and to clarify DOE's role in fulfilling the U.S. research and commercial isotope production needs.

The conclusions presented in the NERAC Subcommittee for Isotope Research and Production Planning Final Report, April 2000 regarding the suitability of FFTF to produce research isotopes in a timely and cost efficient manner were made in the context of the facility producing research isotopes as its sole mission. It would not be cost effective to restart FFTF for the singular purpose of producing small quantities of various research isotopes. However, sustained operation of FFTF for the production of larger quantities of both research and commercial isotopes would be viable if operated in concert with producing plutonium-238 and conducting nuclear energy research and development for civilian

Commentor No. 296: Mary Eccon Smith (Cont'd)

Response to Commentor No. 296

applications. As the NERAC report states: “In limited instances, the DOE possesses unique resources, e.g., the high flux of fast neutrons and large irradiation volume in FFTF, that could be utilized for the production of some radioisotopes, but is best suited for commercial interests who might consider its use for isotope production.” In recognition of these constraints on its operational feasibility, the NI PEIS only evaluates the use of FFTF when coupled with the other stated missions. While some existing reactors may possess the potential capability or capacity to support research isotope production, as suggested in the NERAC report, it is unlikely that reliable, increased production of these isotopes to support projected needs could be accomplished without impacting the existing missions of these facilities.

296-4: Consistent with its mandates under the Atomic Energy Act, DOE is proposing enhancement of its nuclear facility infrastructure for the purposes of addressing three primary needs:

- 1) to support the need for increased domestic production of isotopes for medical, research, and industrial uses, as initially identified by a panel of experts in the medical field and reaffirmed by the Nuclear Energy Research Advisory Committee;
- 2) to support future NASA space exploration missions by re-establishing a domestic capability to produce plutonium-238, a fuel source that is required for deep space missions and which the U.S. has no long term, assured supply; and
- 3) to support civilian nuclear research and development needs in order to maintain the clean, safe, and reliable use of nuclear power as a viable component of the United States' energy portfolio. The FFTF at the Hanford Site was one of several existing DOE resources that were assessed for these missions.

Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. Waste management activities, such as treatment, storage, and disposal, are conducted via permits from the Washington State Department of Ecology. As stated in Section N.3.2

Commentor No. 296: Mary Eccon Smith (Cont'd)

Response to Commentor No. 296

implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

- 296-5:** The costs of proposed actions are not required by NEPA and CEQ regulations to be included in a PEIS. DOE prepared a separate Cost Report to provide additional pertinent information to the Secretary of Energy so that he may make an informed decision with respect to the alternatives presented in the NI PEIS. Pursuant to CEQ regulations (40 CFR 1505.1(e)), agencies are encouraged to make ancillary decision documents available to the public before a decision is made. DOE mailed this document to about 730 interested parties on August 24, 2000. The report was made available immediately upon release on the NE web site <http://www.nuclear.gov>) and in the public reading rooms. DOE has also provided a summary of the Cost Report in Appendix P in the Final NI PEIS.
- 296-6:** Management of wastes that would be generated under implementation of Alternative 1, Restart FFTF, is discussed in Section 4.3 of Volume 1 (e.g., see Section 4.3.1.1.13). Section 4.3.1.1.13 was revised to clarify that, the Hanford waste management infrastructure is analyzed in this PEIS for the management of waste resulting from FFTF restart and operation. This analysis is consistent with policy and DOE Order 435.1, that DOE radioactive waste shall be treated, stored, and in the case of low-level waste, disposed of at the site where the waste is generated, if practical; or at another DOE facility. However, if DOE determines that use of the Hanford waste management infrastructure or other DOE sites is not practical or cost effective, DOE may issue an exemption under DOE Order 435.1 for the use of non-DOE facilities (i.e., commercial facilities) to store, treat, and dispose of such waste generated from the restart and operation of FFTF. In addition, Section 4.3.3.1.13 and 4.4.3.1.13 also address the potential impacts associated with the waste generated from the target fabrication and processing in FMEF and how this waste would be managed at the site.

Commentor No. 297: Nancy Hannah

Draft PEIS Comment Form

FFTF will greatly impact the environment and the use of that product is not needed. If the medical community is in favor of this then why are they not stating this - Physicians for Social Responsibility has already signed against this. The danger to the citizens of Washington is too great - Clean up the waste already produced!

One of the arguments stated over & over is to reduce cost of health care - this ~~is~~ not be a major positive because what may be ~~cost~~ cost reducing now - often has huge costs in the future with clean up

I am a downwinder - let's not do it again!

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- faxing your comments toll-free to: 1-877-562-4592
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E-mail (optional): _____

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E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 297

297-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF. Chapter 4 of Volume 1 of the NI PEIS provides an impact analysis that includes an estimate of waste generation and potential human health impacts associated with each of the alternatives proposed for the production of medical, industrial and research isotopes. Any additional wastes generated in support of these missions would be managed in a safe an environmentally protective manner and in compliance with all applicable Federal and state laws, regulations, and applicable DOE orders. In terms of potential human health impacts, the NI PEIS analysis indicates that the most likely impacts would not result in additional cancer fatalities among the population surrounding the DOE facilities that may be selected for use.

DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings. Section 1.2.1 of Volume 1 was revised to incorporate this information and to clarify DOE's role in fulfilling the U.S. research and commercial isotope production needs.

297-2: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies

Response to Commentor No. 297

milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The proposed alternatives would not have an impact on Hanford cleanup activities. The Hanford Site has a comprehensive waste minimization and pollution prevention program in place, as summarized in Section 3.4.11.8 of Volume 1, that would govern any proposed site activities.

297-3: DOE notes the commentor's concern for the long-term cleanup costs associated with the alternatives.

Commentor No. 297: Nancy Hannah (Cont'd)

Commentor No. 298: R. G. Peterson

Response to Commentor No. 298

Draft PEIS Comment Form

Thank you for holding meetings at several locations. These are complex issues and benefit from advice and comment by many people. Thank you for taking everyone's comments into consideration.

My main concern is that we have a history of moving forward with technical processes when we are not clear how the whole life cycle of the materials produced and by products can be managed safely. The staff that the PEIS refers to withification of byproducts or waste, is of concern to me when we haven't yet been able to vitrify anything at Hanford and there have been problems with the contract for the vitrification project, according to what I've read in the newspaper.

Those of you in Washington DC may not be aware of the bad record of Hanford's managers in not honestly reporting on the release of radioactivity in the recent wildfires in the Hanford area, and the accident on the Hanford site a few years ago. When the find's managers first say there were no releases, then later discover there were - why should we trust them with next generation of radioactive materials?

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

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- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): R. G. Peterson

Organization: _____

Home/Organization Address (circle one): 2633 14th Ave. W., #1

City: Seattle State: WA Zip Code: 98119-2147

Telephone (optional): _____ I'm on your mailing list already, thanks!

E-mail (optional): _____

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E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/12/00

298-1

298-1: DOE notes the commentor's concern regarding vitrification of waste.

298-2: No radioactive materials were "released" in the Hanford Wildfires of 2000. Wildfires did resuspend some materials already in the environment. The resuspended materials were low, slightly above natural background levels.

In both cases referenced, the low levels required several days of analysis to quantify. Levels were much too low to detect with real-time monitoring instruments. Special analysis over several days were required to measure the environmental levels of contaminants encountered. Data was accurately reported to the public as it became available.

298-2

298-3

DOE will ensure that FFTF is safe to accomplish the stated missions. In the event that FFTF restart is selected in the Record of Decision, complete safety and operational readiness reviews will be performed prior to the restart. The FFTF Safety Analysis Report is routinely reassessed and updated when required to address any changes in plant configuration due to physical modifications or changes in plant operation procedures. The operational readiness review would assess the current updated Safety Analysis Report to ensure that the analyses bound the reactor-operating envelope. The analyses presented in this NI PEIS reflect the proposed changes to the reactor core (including fuel and irradiation targets) to perform the DOE missions.

298-3: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

Commentor No. 299: Bud Taylor

Draft PEIS Comment Form

I support the Restart of FETF for the purposes of producing ^{238}Pu , therapeutic medical isotopes, testing of materials & fuels, neutron activation for research & analysis and for the burnup of existing weapons material stockpiles. The last purpose is in my opinion the most important single item, along with R&D for commercial nuclear power.

In future, I would prefer that DOE include all the key points identified in scoping hearings in their draft Environmental Impact Statements. This is a necessary precursor to meaningful public comment hearings. Issues that are left unspoken to become points of misunderstanding and misinformation that are exploited.

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- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): Bud Taylor

Organization: _____

Home/Organization Address (circle one): 11029 Flament Ave N.

City: Seattle State: WA Zip Code: 98133

Telephone (optional): _____

E-mail (optional): bud.taylor@doh.wa.gov

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E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



Response to Commentor No. 299

299-1

299-1: DOE notes the commentor's support for Alternative 1, Restart FETF. It should be noted that the research and development mission includes research for the burnup of weapons materials but not for the burnup of the materials themselves.

299-2

299-2: DOE notes the commentor's concerns and recognizes the necessity for clear representation of issues raised throughout the public participation process as a means of facilitating informed decisionmaking. Section 1.4 of Volume 1 of this NI PEIS, as supplemented by an expanded discussion provided in Appendix N, summarizes the prevailing issues and concerns raised during the scoping process to include identification of prevalent issues raised at individual scoping meetings. In fact, based on the scoping comments received, the scope of the NI PEIS was expanded in a number of areas as outlined in Section 1.4 and Appendix N. It should be noted, however, that NEPA and CEQ regulations do not require an agency to include and respond to each scoping comment as is required for public comments on a Draft EIS. While all comments received during the scoping periods are part of the Administrative Record for the NI PEIS, Section 1.4 and Appendix N are intended to provide a summary of the issues and associated trends identified during the scoping process rather than a tabulation of comments by specific issue. In preparing the NI PEIS, DOE carefully considered all scoping comments received from the public.

Commentor No. 300: Jim Pardu

Response to Commentor No. 300

Draft PEIS Comment Form

I STRONGLY support the Restart of FFTR for the production of Medical Isotopes and other Non Weapons Programs. Such other programs are Reactor Research U338 production

300-1

300-1: DOE notes the commentor's support for Alternative 1, Restart FFTR. It should be noted that the reactor would be used to conduct nuclear research and to produce plutonium-238 and medical and industrial isotopes. It would not produce uranium-238.

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- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): Jim Pardu

Organization:

Home/Organization Address (circle one): 40504

E Ridge Crest Dr

City: Benton City State: WA Zip Code: 99340

Telephone (optional): 509-967-9347

E-mail (optional):

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7/12/00

Commentor No. 301: Sandra Gray

Response to Commentor No. 301

Draft PEIS Comment Form

I am a resident of Richland, Washington, and I am in favor of restarting FFTF for making medical and space isotopes. I have investigated the claims of some groups, such as Heart of America, but I find them to be unfounded. Please do not succumb to pressure from these anti nuclear groups to stop progress on this important mission - they want to deprive the American people and offer no alternative.

The FFTF has enjoyed a legacy of excellent design, proven during reactor operations and challenged in a variety of tests designed to push the limits. The facility has met or exceeded all expectations. The intangible force is the quality of the people associated with FFTF.

This facility is an excellent resource not only for Richland or for DOE, but for the American people. Put it to use!

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- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): SANDRA GRAY

Organization: _____

Home/Organization Address (circle one): 555 SAINT ST.

City: RICHLAND State: WA Zip Code: 99352

Telephone (optional): 509-375-6178

E-mail (optional): 24ftig53@3-cities.com

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E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/12/00

301-1

301-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

301-2

301-2: DOE notes the commentor's views and observations.

301-1

Commentor No. 302: Frank Zucker

Draft PEIS Comment Form

You've built up waste for fifty years
in storage tanks with leaks and tears
You claim you're cleaning up this waste
with hearings now to find our taste
Yet you ignore us every time
Even when we speak in rhyme
Whenever you all come to town
We always tell you, "Shut it down!"
The Fast Flux Test Facility
Is of no use to you or me!
The isotopes have other sources
And NASA can use other forces
So here are several hearing aids
To help you hear all our tirades
When will you hear us as we speak?
When all your tanks have rips and leaks?
Before I turn this platform loose
Apologies to Dr. Seuss

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): Frank Zucker

Organization: _____

Home/Organization Address (circle one): _____

City: _____ State: _____ Zip Code: _____

Telephone (optional): _____

E-mail (optional): _____

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E-mail: NuclearInfrastructure-PEIS@hq.doe.gov

7/12/00

302-1

302-2

Response to Commentor No. 302

302-1: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected. The Hanford Site has a comprehensive waste minimization and pollution prevention program in place, as summarized in Section 3.4.11.8 of Volume 1, that would govern any proposed site activities.

DOE gave equal consideration to all comments. In preparing the Final NI PEIS, DOE carefully considered comments received from the public.

302-2: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

The United States currently purchases approximately 90 percent of its medical isotopes from foreign producers, including Canada, South Africa, and the former Soviet Union. Section 1.2.1 of Volume 1 has been revised to clarify DOE's isotope production role and other producers' capabilities to fulfill U.S. isotope needs.

DOE notes the commentor's concern for NASA's use of nuclear materials for space missions and interest in the development of alternative energy sources for space missions, although issues such as NASA research priorities are beyond the scope of the PEIS. NASA establishes the need and requirements for space missions and undergoes a thorough NEPA evaluation for each launch. Plutonium-238 sources are used only when they enable the missions or enhance mission capabilities.

Commentor No. 303 Alan E. Niehaus

Draft PEIS Comment Form

I am a resident of Pasco Washington and I strongly support the restart of FFTF for isotope production. My father died from a class 4 stomach cancer some years ago. He had 1/3 of his stomach removed and was taking chemotherapy but to no prevail. My feelings are that if FFTF was operating in isotope research and production a cure could have been found and that he would be alive today. I strongly urge the restart of FFTF to improve the fight against cancer.

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- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): Alan E. Niehaus

Organization: _____

(Home) Organization Address (circle one): 3906 Riverward Ct.

City: Pasco State: WA Zip Code: 99301

Telephone (optional): (509) 545-8944

E-mail (optional): ANiehaus@AOL.com

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U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
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E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



Response to Commentor No. 303

303-1

303-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 304: Cheryl A. Anderson

Response to Commentor No. 304

Draft PEIS Comment Form

I am a Washington State resident who believes that FFTF should be restarted in order to produce the much needed medical isotopes so important in the treatment of cancer.

FFTF, in my opinion, is the logical choice for "American" produced isotopes.

What a shame it would be not to make good use of this existing facility.

As a taxpayer, I would much rather see my dollars going into funding missions for reactors such as FFTF rather than seeing them abandoned and left standing like large "white elephants".

Let's stop wasting our money building new. Let's stop wasting money and technology abandoning facilities rather than making use of them.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

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- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): Cheryl A. Anderson

Organization:

Home/Organization Address (circle one):

8925 W. Bonnie Ave.

City: Kennewick State: WA Zip Code: 99336

Telephone (optional): (509) 787-2210

E-mail (optional):

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E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

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304-1

304-1: DOE notes the commentor's support for Alternative 1, Restart FFTF and opposition to Alternative 3, Construct New Accelerator(s) and Alternative 4, Construct New Research Reactor.

Commentor No. 305: M. F. Duffield

Draft PEIS Comment Form

*I support the restart of FFTF
for isotope + Pu 238 Production*

305-1

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

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- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): *M. F. Duffield*

Organization: _____

☒ Home ☐ Organization Address (circle one): *1940 Pheasant*

City: *W. Rochland* State: *LA* Zip Code: *99353*

Telephone (optional): *509-962-2066*

E-mail (optional): *Duffy_2000@yahoo.com*

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E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 305

305-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 306: Phil McGinness

Response to Commentor No. 306

Draft PEIS Comment Form

The PEIS should also consider Infrastructure available to the various alternatives.

FFTF is the best alternative because it has the best infrastructure available. PNM is the strongest part of this infrastructure, as PNM is the nation's leading and premier lab for nuclear isotope production and marketing.

What other option has the infrastructure in place to make isotope production marketable and profitable and successful? PPTF and PNNL?

Thank You and please make the right choice, not the politically correct choice.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Phil McGinness

Organization: self

Home Organization Address (circle one): 3030 W 4th, A-4

City: Kennett, IL State: WA Zip Code: 99336

Telephone (optional): 509-735-2073

E-mail (optional): manofgod@integrityonline.com

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7/12/00

306-1

306-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 307: Al Rasmussen

Draft PEIS Comment Form

If nuclear production continues at Hanford, there will be additional accidents there. Some day there will be an accident in the port city nuclear materials are shipped through. Nobody knows when it will happen, but there can be little doubt that it will happen.

Seismologists cannot say when Seattle will suffer a major earthquake — much bigger than any in recorded history here — but they know it will happen. Volcanologists do not know when Mt. Rainier will next erupt, but they know it will happen again and again.

It is likely none of these things will happen during my lifetime, but there is one thing that could happen. Reason and responsibility can take hold to put an end to the danger and pollution and waste and expense of continuing nuclear production at Hanford. The FFTF reactor should not be restarted and it should be removed from hot standby. Stop it. Stop it now.

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): AL RASMUSSEN

Organization: _____

Home Organization Address (circle one): 5235-17th Ave NE, #1

City: Seattle State: WA Zip Code: 98105

Telephone (optional): _____

E-mail (optional): _____

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7/12/00

Response to Commentor No. 307

307-1: FFTF and fabrication/processing facilities at the Hanford Site can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Section 4.2-4.6 of Volume 1 provide the results of the evaluation of potential health impacts that would be expected to result from implementation of the alternatives, including normal operations and a spectrum of accidents that included severe accidents. The spectrum of accidents reviewed included both design basis and beyond design basis seismic events. The environmental analysis showed that radiological and nonradiological risks associated with each of the alternatives is small. In addition, prior to restarting FFTF, a revised safety analysis report and probabilistic risk assessment which address the potential consequences of a variety of events, including earthquakes would be prepared.

Alternative 1 postulates that DOE might decide at some point to import mixed oxide fuel from Europe to fuel FFTF. At this time, however, DOE has not proposed to import this fuel through any specific port. If DOE ultimately decides to import fuel from Europe, it would perform a separate NEPA analysis to select a port. This review would address all relevant potential impacts of overseas and inland water transportation, shipboard fires, package handling, land transportation, as well as safeguards and security associated with the import of SNR-300 mixed oxide fuel through a variety of specific candidate ports on the east and west coasts. It would consider all public comments, including local resolutions, concerning the desirability of bringing mixed oxide fuel into the proposed alternative ports.

In the event that DOE decides to enhance its nuclear infrastructure, it would not expose any population to high, unacceptable risks under any alternative. Any transportation activities that would be conducted by DOE would comply with U.S. Nuclear Regulatory Commission and U.S. Department of Transportation regulations. Associated transatlantic shipment would comply with International Atomic Energy Agency requirements. In Section J.6.2, DOE reviewed the potential maximum impacts from the marine transportation of mixed oxide fuel from Europe to a representative military port, Charleston, South Carolina, and overland transportation to Hanford. Also in that section, a bounding analysis demonstrates that the maximum potential radiological risks to the surrounding public from mixed oxide fuel shipments would be small (e.g., less than 1 chance in a trillion for a latent cancer fatality per shipment

Commentor No. 307: Al Rasmussen

Response to Commentor No. 307

from severe accidents at docks and in channels and less than 1 chance in 50 billion for a latent cancer fatality per shipment from overland highway accidents).

307-2: DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and support for Alternative 5, Permanently Deactivate FFTF.

Commentor No. 308: Anonymous

Draft PEIS Comment Form

WHEN THEY CAN COMPLETELY NEUTRALIZE
THE WASTE, WHEN ALL IS RETRIEVED & NEUTRALIZED-
THEN - MAYBE MEANWHILE WE SHOULD BE ABLE
TO RESOLVE OUR NEEDS BY OTHER MEANS WHICH WE
SHOULD ALREADY HAVE DONE BY NOW

GET ON IT!!!

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- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): _____

Organization: _____

Home/Organization Address (circle one): _____

City: _____ State: _____ Zip Code: _____

Telephone (optional): _____

E-mail (optional): _____

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E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 308

308-1

308-1: DOE notes the commentor's concern regarding the wastes currently stored in the high-level radioactive waste tanks located at Hanford. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram funds designated for Hanford cleanup, regardless of the alternative(s) selected. FFTF restart would not generate high-level radioactive waste. The NI PEIS addresses wastes produced for each alternative, as well as cumulative impacts related to waste production. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and appropriate DOE orders.

Commentor No. 309: Norm Buske

Response to Commentor No. 309

Draft PEIS Comment Form

As Sec. 2.3.1.1.3 says, 3/4 of proposed FFTF load is not for stated missions, but rather for R+D "activities." These can include nuclear weapons material production.
Include the environmental impact of the deployment and use of these possible products of FFTF operation in the final EIS!

309-1

309-1: Section 2.3.1.1.3 of the NI PEIS identifies that for other than periodic increases up to 400 megawatts to support nuclear research and development activities, FFTF would be operated at a nominal 100 megawatts in order to extend the reactor life and significantly reduce the generation rate of spent fuel. The nuclear research and development activities that this discussion is referring to would be for civilian applications.

The purpose of the NI PEIS is to evaluate the environmental impacts of reasonable alternatives to enhancing DOE's existing nuclear facility infrastructure to support production of isotopes for medical, research, and industrial uses, production of plutonium-238 for use in future NASA space exploration missions, and U.S. nuclear research and development needs for civilian application. As discussed in Section 1.2 of Volume 1, plutonium-238 would be produced to support NASA's deep space missions. Plutonium-238 is not used to produce nuclear weapons. All missions considered in the NI PEIS are for civilian purposes.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Norm Buske
Organization: Nuclear-weapons-free America
Home/Organization Address (circle one): 1528 W. 6th Ave #2
City: Spokane State: WA Zip Code: 99204
Telephone (optional): (509) 363-1135
E-mail (optional): search@igc.org

COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Colette E. Brown, NE-60
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free Telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

Commentor No. 310: Allen Seaman

Draft PEIS Comment Form

I am a supporter of the restart of FFTF. There is a need for the medical isotopes for cancer patients, and FFTF and produce them.

310-1

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

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- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): Allen Seaman

Organization: _____

Home/Organization Address (circle one): 816 N Cedar Ave.

City: Passaic State: WA Zip Code: 99361

Telephone (optional): 545-9653

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 11, 2000

For more information contact: Colette E. Brown, NE-50
U.S. Department of Energy • 19701 Germantown Road • Germantown, MD 20874
Toll-free Telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 310

310-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 311: Jeanne Welsch

Response to Commentor No. 311

Draft PEIS Comment Form

The cost savings for producing medical isotopes and the lives it would save the United States is reason alone to keep the FFTF facility and Startup production. Let's start the Fast Flux Test Facility.

311-1

311-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

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- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Jeanne Welsch

Organization: _____

Home/Organization Address (circle one): 247 Ada

City: Richland State: WA Zip Code: 99352

Telephone (optional): (509) 946-7264

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 11, 2000

For more information contact: Colette E. Brown, NE-50
U.S. Department of Energy • 19001 Germantown Road • Germantown, MD 20874
Toll-free Telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



Commentor No. 312: Mike Falagher

Draft PEIS Comment Form

I support The Restart OF
FFTF

312-1

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Mike Falagher

Organization: _____

☒ Home ☐ Organization Address (circle one): 1110 W. Arthur

City: Kennelwick State: WA Zip Code: 99336

Telephone (optional): _____

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 11, 2000

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U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 312

312-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 313: Don Crnovich

Response to Commentor No. 313

Draft PEIS Comment Form

I would like to see the
restart of the FFTF.
Thank you

313-1

313-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): Don Crnovich

Organization:

Home/Organization Address (circle one): 1701 S Auburn

City: Kennewick State: WA Zip Code: 99337

Telephone (optional): 1-509-582-7418

E-mail (optional):

COMMENTS MUST BE POSTMARKED BY September 11, 2000

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U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free telephone: 1-877-562-4593 • Toll-free fax: 1-877-562-4592
E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/12/00

Commentor No. 314: Kent R. Welsch

Draft PEIS Comment Form

*if fully support the restart of FFTE
for medical isotope production and any
other missions of research + development*

314-1

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Kent R. Welsch

Organization: _____

Home/Organization Address (circle one): 1400 N. Montana

City: Kennewick State: WA Zip Code: 99336

Telephone (optional): (509) 736-5534

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 11, 2000

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U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 314

314-1: DOE notes the commentor's support for Alternative 1, Restart FFTE.

Commentor No. 315: Clayton Carr

Response to Commentor No. 315

Draft PEIS Comment Form

I SUPPORT THE RESTART OF FFTF.
IT IS THE MOST COST EFFECTIVE MEANS OF
PRODUCING MEDICAL ISOTOPES.

315-1

315-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

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- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): CLAYTON CARR

Organization: _____

Home/Organization Address (circle one): _____

108 N. 30TH AVENUE

City: YAKIMA State: WA Zip Code: 98902

Telephone (optional): _____

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 11, 2000

For more information contact: Colette E. Brown, NE-50
U.S. Department of Energy • 10901 Germantown Road • Germantown, MD 20874
Toll-free Telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

Commentor No. 316: Sally J. Serier

Draft PEIS Comment Form

We need the Fast Flux Test Facility to produce medical isotopes.
I support the Restart of FFTE.

316-1

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Sally J. Serier

Organization: _____

Home/Organization Address (circle one): _____

City: Kennecott State: VA Zip Code: 99336

Telephone (optional): _____

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 11, 2000

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Toll-free telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 316

316-1: DOE notes the commentor's support for Alternative 1, Restart FFTE.

Commentor No. 317: Jane A. Boyd

Response to Commentor No. 317

Draft PEIS Comment Form

DOE NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

I, Jane A. Boyd, am in favor of restarting the Fast Flux Test Facility (FFTF) for the production of medical isotopes.

Jane A. Boyd

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): Jane A. Boyd

Organization: _____

Home Organization Address (circle one): 321 Thayer Dr.

City: Richland State: WA Zip Code: 99352

Telephone (optional): _____

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 11, 2000

For more information contact: Galella E. Brown, NE-50
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20854
Toll-free telephone: 1-877-562-4593 • Toll-free fax: 1-877-562-4592
E-mail: NuclearInfrastructure-PEIS@hq.doe.gov

7/12/00

317-1

317-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 318: Kline Welsch

Draft PEIS Comment Form

We rely on other countries to produce medical isotopes when the United States could be the leader in production + research world wide and save precious lives.
"Restart FAST FLUX TEST FACILITY"

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): Kline Welsch

Organization: _____

Home/Organization Address (circle one): 704 Cedar Ave.

City: Richland State: WA Zip Code: 99336

Telephone (optional): (509) 943-3271

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 11, 2000

For more information contact: Colette E. Brown, NE-50
 U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
 Toll-free telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
 E-mail: NuclearInfrastructure-PEIS@hq.doe.gov

7/12/00

Response to Commentor No. 318

318-1

318-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 319: Bryon Christoffersen

Response to Commentor No. 319

Draft PEIS Comment Form

I'm a resident of West Richland, WA and I would like to see the FFTF restarted and utilized for the DOE missions.

319-1

319-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

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- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): *BRYON CHRISTOFFERSEN*

Organization: _____

Home/Organization Address (circle one): *2702 BIRCHWOOD LANE*

City: *WEST RICHLAND* State: *WA* Zip Code: *99353*

Telephone (optional): *(509) 967-9244*

E-mail (optional): *STEF@KQ.COM*

COMMENTS MUST BE POSTMARKED BY September 11, 2000

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U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/12/00

Commentor No. 320: Anonymous

Draft PEIS Comment Form

*I am in favor of the
Restart of FFTF.*

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

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- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): _____

Organization: *Hamster*

Home/Organization Address (circle one): *NI-84*

City: *Richland* State: *WA* Zip Code: *99352*

Telephone (optional): _____

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 11, 2000

For more information contact: Collette E. Brown, NE-SO
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free Telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: NuclearInfrastructure-PEIS@hq.doe.gov

7/12/00

320-1

Response to Commentor No. 320

320-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 321: Anonymous

Draft PEIS Comment Form

Genetic research is coming up with better ways to cure cancer.
 Medical therapeutic isotopes can be made from materials from Russia that are for sale + cheaper.
 We have not cleaned up the mess that has been created over the last 55 or more years. We are poisoning the ~~Great~~ Columbia River.
 If the highest priority of the US Dept of Energy was clean up I believe it would already be done. There are other ways to fight cancer that does not create a lot more cancer causing material.
 We (the USA) said we would destroy our huge stock of nuclear weapons, so far this has not been happening. The Trident subs for example have bombs equal to eight Hiroshima bombs some are to be mothballed but others upgraded 4 times. These are not weapons. They are as destructive to ourselves as to any other persons, as well as animals + everything else on the planet. If we only had a it would be too many I don't know how many we have but it is a huge number, by the grace of God we have not destroyed ourselves yet I wish a
There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

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- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): _____

Organization: _____

Home/Organization Address (circle one): _____

City: _____ State: _____ Zip Code: _____

Telephone (optional): _____

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Colette E. Brown, NE-50
 U.S. Department of Energy • 19501 Germantown Road • Germantown, MD 20874
 Toll-free telephone: 1-877-562-4593 • Toll-free fax: 1-877-562-4592
 E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 321

321-1

321-1: The commentor's position on genetic research and opposition to the use of medical isotopes are noted. Potential benefits of genetic research are outside the scope of the NI PEIS. As discussed in Section 1.2.1 of Volume 1, one of the DOE's missions is to insure a reliable supply of radioisotopes for clinical applications and research.

321-2

321-3

321-2: DOE acknowledges that other manufacturers can produce certain isotopes at lower costs. In fact, the United States currently purchases approximately 90 percent of its medical isotopes from foreign producers, including Canada, South Africa, and the former Soviet Union. Section 1.2.1 of Volume 1 has been revised to clarify DOE's isotope production role and other producers' capabilities to fulfill U.S isotope needs.

321-1

321-4

321-3: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

The Hanford Site has a comprehensive waste minimization and pollution prevention program in place, as summarized in Section 3.4.11.8 of Volume 1, that would govern any proposed site activities.

More specific to the DOE missions presented in the NI PEIS, FFTF is located approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to the groundwater. As indicated in analyses presented in Chapter 4 of Volume 1 (e.g., Sections 4.3.1.1.4, 4.3.3.1.4, 4.4.3.1.4, 4.5.3.2.4, and 4.6.3.2.4), there would be no discernible impacts to groundwater or surface water quality at Hanford from operation of Hanford facilities that would support the nuclear infrastructure missions described in Section 1.2 of Volume 1.

Response to Commentor No. 321

321-4: The commentor's positions on nuclear disarmament and reduction of stockpiles of nuclear weapons are noted, although nuclear weaponry is outside of the scope of this NI PEIS. The nuclear infrastructure missions described in Section 1.2 of Volume 1 are unrelated to the national defense. Nuclear weaponry would not be produced under any of the nuclear infrastructure alternatives described in Section 2.5.

Commentor No. 321: Anonymous (Cont'd)

Commentor No. 322: Rosemary E. Brodie

8/30/00

How many times must we return here to protest the restarting of the dangerous, and expensive Fast Flux Test Facility?
We have said it all already. What more is there to say?

Medical isotopes? We killed that argument many times over in the past. Experts in the field say there is absolutely no need for an additional source of these isotopes. There are sources in this country and Canada as well.

Plutonium 238 for fuel of the space missions- Today's PI tells us even that is not needed.

Clean-up is where it's at!!!! Not more money down the tube for FFTF.

Meanwhile, Keith Klein, Manager of Hanford says: "Are there going to be trade offs? Almost certainly. We do not have adequate funding to do it all. When we get those trade offs better defined – hopefully in the next few months – we will again be seeking your input".
That's supposed to reassure us that all is well? We will come back as long as it takes.

How about this one: "We may decide to initiate negotiations that could result in changes to the Tripartite Agreement (TPA) butwe would conduct a formal public involvement process". – Are we being listened to?
It does not seem to help.

As public citizens we should not accept anything short of a thorough job of clean up.

Everything that is physically possible – never mind financially possible!
Selling off a couple of TRIDENT subs might boost the kitty to pay for this.

Rosemary E. Brodie
3842 NE 90th St
Seattle WA 98115

322-1

322-2

322-3

322-4

Response to Commentor No. 322

322-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF. Included in the PEIS are the results of analyses that show that the risks associated with operating the FFTF are very small.

322-2: DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings. Section 1.2.1 of Volume 1 was revised to incorporate this information.

The United States currently purchases approximately 90 percent of its medical isotopes from foreign producers, most notably Canada. However, Canada only supplies a limited number of economically attractive commercial isotopes (primarily molybdenum-99), and it does not supply research isotopes or the diverse array of medical and industrial isotopes considered in the NI PEIS. As such, reliance on Canadian sources of isotopes to satisfy projected U.S. isotope needs would not meet DOE's mission requirements. Section 1.2.1 of Volume 1 has been revised to clarify DOE's isotope production role and other producers' capabilities to fulfill U.S. isotope needs.

322-3: Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. In addition, under the National Space Policy issued by the Office of Science and Technology Policy in September 1996, and consistent with DOE's charter under the Atomic Energy Act, DOE is responsible for maintaining the capability to provide the plutonium-238 needed to support these

Commentor No. 322: Rosemary E. Brodie (Cont'd)

Response to Commentor No. 322

missions. There are approximately 9 kilograms (19.8 pounds) of plutonium-238 in the U.S. inventory available to support future NASA space missions; no viable alternative to using plutonium-238 to support these missions currently exists. Based on NASA guidance to DOE on the potential use of radioisotope power systems for upcoming space missions, it is anticipated that the existing plutonium-238 inventory will be exhausted by approximately 2005. Section 1.2.2 of Volume 1 was revised to clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

322-4: DOE was tasked by Congress in the Atomic Energy Act of 1954, as amended, to "...ensure the availability of isotopes for medical, industrial, and research applications, meeting the nuclear material needs of other federal agencies, and undertaking research and development of activities related to development of nuclear power for civilian use." The purpose of this PEIS is to determine the environmental and other impacts to accomplishing this mission from all reasonable existing and new DOE resources. The FFTF at the Hanford Site was one of several existing DOE resources that was assessed for this mission.

DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected. The Hanford Site has a comprehensive waste

Commentor No. 322: Rosemary E. Brodie (Cont'd)

Response to Commentor No. 322

minimization and pollution prevention program in place, as summarized in Section 3.4.11.8 of Volume 1, that would govern any proposed site activities.

Excessing U.S. defense assets to fund DOE activities is not within the scope of this PEIS.

Commentor No. 323: Richard O. Zimmerman

Tides 796624

Date: August 30, 2000
 Location: Seattle, Washington
 Subject: Public Comment to the Draft Programmatic Environmental Impact Statement that includes the option to restart the FFTF.

Commenter: Dr. Richard Orin Zimmerman
 220 Orchard Way
 Richland, WA 99352

Thank you for the opportunity for the public to make comments on this important topic. My name is Dr. Rick Zimmerman and I am a resident of Richland Washington. I come in support of the Draft PEIS Alternative 1.

The medical community is in need of production level quantities of medical isotopes for cancer diagnosis and treatment. I am a cancer survivor of a form that has a 50% mortality rate. Just last week I had dinner with a friend who has cancer with a 95% mortality rate within two years. By the grace of God, she is at the 4-year mark since her diagnosis. One of the reasons for her survival is that new treatment regimes are being discovered and approved as she reaches the end of the effectiveness of an earlier prescribed treatment. She and many others need the medical isotopes option now to enjoy a quality of life without the abuses of existing treatments.

Alternative 1, restarting the FFTF, provides the fastest option to provide research and production scale quantities of the many needed forms of isotopes to the medical community. This in turn, helps those courageous cancer patients maintain their quality of life.

Additionally, I'd like to endorse the testimony of others at the earlier NOI hearings that provide compelling evidence to restart the FFTF.

1. FFTF is a facility ready, with staff in place, to undertake this mission.
2. Within years of restart, operational costs of the FFTF would be paid for by sales of isotope production. (A remarkable way for a government facility to operate without burden on the federal budget)
3. Cost savings through medical isotope use is projected to equal the current national financial burden of Medicare, which in 1999 was \$213 billion. (Talk about Return on Investment).

Thank you for your time, I trust this information will be useful.

Richard O. Zimmerman
 Richard Orin Zimmerman

Response to Commentor No. 323

323-1

323-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

323-2

323-2: DOE notes the commentor's views on the costs and benefits of the proposed production of medical radioisotopes in the FFTF. The estimated costs of the range of reasonable alternatives are presented in the Cost Report, summarized in Appendix P of the Final NI PEIS. However, the Cost Report is not a cost-benefit analysis. While it is reasonable to believe that the benefits of medical isotopes are substantial, the purpose of this NI PEIS is to describe the nuclear infrastructure missions (Section 1.2 of Volume 1), a range of reasonable alternatives for satisfying the mission requirements (Section 2.5 of Volume 1), and the environmental impacts that would result from implementation of the alternatives. According to 40 CFR Section 1502.23, if a cost-benefit analysis exists, it must be reported and summarized in the NI PEIS.

Commentor No. 324: Eldon L. Ball

Draft PEIS Comment Form

I SERIOUSLY DOUBT THAT 55 YEARS AGO (8:30:45) THE JAPANESE CONSIDERED HIROSHIMA OR NAGASAKI AS NATIONAL ASSETS, OR THAT 10 YEARS AGO THE SOVIET UNION THOUGHT OF CHERNOBYL AS A "NATIONAL ASSET" OR THE PEOPLE OF PENNSYLVANIA FELT 3 MILE ISLAND WAS A NATIONAL ASSET WHEN IT NEARLY EXPLODED. HAS THE RISK OF WILDFIRE BEEN ADEQUATELY CONSIDERED? IF ANY PLUTONIUM IS NEEDED, BUY IT FROM RUSSIA. THEY HAVE PLENTY. IT WOULD GIVE WORK TO RUSSIANS. WE COULD THEN GET ON WITH LONG OVERDUE CLEANUP. IT COULD BE A WIN-WIN SITUATION. ALSO SHUT DOWN THE FAST FLUX TEST FACILITY PERMANENTLY. CONSIDER THIS ALTERNATIVE 6. GET ON WITH THE TRI-PARTITE AGREEMENT & CLEANUP OF HANFORD ON THE SCHEDULE THAT WAS AGREED 10 YEARS AGO BY THE DEPT OF ENERGY. THE DOE HAS BEEN DRAGGING ITS FEET MUCH TOO LONG. STOP THE HEARINGS, GET ON WITH THE CLEANUP. THE DOE SUBCOMMITTEE FOR ISOTOPE RESEARCH CONCLUDED THAT "FFTF IS NOT A VIABLE SOURCE FOR MEDICAL RESEARCH ISOTOPES."

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

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7/12/00

Response to Commentor No. 324

324-1: FFTF can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small.

An assessment of the risk of a wildfire indicated that, in the worst case, it could lead to a loss of offsite power, which the FFTF, because of its passive cooling capability, could withstand without overheating the core or leading to the release of any radioactivity.

324-2: DOE could purchase plutonium-238 from Russia; however, for supply reliability reasons and concern of nuclear nonproliferation, DOE's preference is to establish a domestic plutonium-238 production capability. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

324-3: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

324-4: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. A Tri-Party Agreement change was made to place the milestones for FFTF's permanent deactivation in abeyance until the DOE reaches a decision on whether the facility will be used to meet mission needs. Public meetings were held on this formal milestone change.

The alternatives delineated in the NI PEIS would not have an impact on Hanford cleanup activities. The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions

Commentor No. 324: Eldon L. Ball (Cont'd)

Response to Commentor No. 324

described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

- 324-5:** DOE assumes the commentor is referring to the Fast Flux Test Facility (FFTF). The conclusions presented in the NERAC Subcommittee for Isotope Research and Production Planning Final Report, April 2000 regarding the suitability of FFTF to produce research isotopes in a timely and cost-efficient manner were made in the context of the facility producing research isotopes as its sole mission. It would not be cost effective to restart FFTF for the singular purpose of producing small quantities of various research isotopes. However, sustained operation of FFTF for the production of larger quantities of both research and commercial isotopes would be viable if operated in concert with producing plutonium-238 and conducting nuclear energy research and development for civilian applications. As the NERAC report states: "In limited instances, the DOE possesses unique resources, e.g., the high flux of fast neutrons and large irradiation volume in FFTF, that could be utilized for the production of some radioisotopes, but is best suited for commercial interests who might consider its use for isotope production." In recognition of these constraints on its operational feasibility, the NI PEIS only evaluates the use of FFTF when coupled with the other stated missions. While some existing reactors may possess the potential capability or capacity to support research isotope production, as suggested in the NERAC report, it is unlikely that reliable, increased production of these isotopes to support projected needs could be accomplished without impacting the existing missions of these facilities.

Commentor No. 325: Liesl Zappler Rogers

Draft PEIS Comment Form

It is inconceivable to me that the DOE would even consider starting up the FFTE at Hanford. The isotopes for cancer research as the draw to start the FFTE is ironic considering the cancer rate of the citizens in the Tri-Cities area. The costs, the wastes, the risks to human & environmental health are far too great to even consider this start-up. I am proud that our city council members are opposed to the FFTE and I stand with them. There are other facilities to create these isotopes & there is no point in trying to cure cancer by starting up another potentially cancer causing facility and creating such a threat to the environmentally sensitive Pacific Northwest. Hanford has been listed to be cleaned up and that should be the focus of the activities there.

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- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

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NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



Response to Commentor No. 325

325-1

325-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTE. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1 (which includes restart of FFTE), including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTE would be small.

325-2

325-3

325-4

As discussed in Section 3.4.9.3 of Volume 1, the question of whether residents in the Hanford area are subject to elevated cancer rates is unresolved. Existing studies and data suggest that cancer mortality rates in counties adjacent to the Hanford Site are not elevated. Prevailing winds at the Hanford Site blow toward Grant County, Washington from the south (14.2 percent of the time) and south-southwest (11.5 percent of the time) directions. Hence, Grant County would be expected to bear a major burden of wind borne contamination from the Hanford Site. However, if an excess cancer mortality risk is present in Grant County, it was too small to be identified at the county-level of resolution in the survey and available National Cancer Institute data discussed in Section 3.4.9.3. Epidemiological studies in Benton and Franklin counties provided no conclusive evidence of elevated congenital defects in the two counties.

325-2: DOE notes the commentor's opposition to Alternative 1, Restart FFTE.

325-3: This PEIS provides estimates of the human health impacts associated with a range of reasonable alternatives (including restart of FFTE) for the production of isotopes for medical uses, research and development, and as heat sources for radioisotope power systems. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1 (which includes restart of FFTE), including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTE would be small.

Commentor No. 325: Liesl Zappler Rogers (Cont'd)

Response to Commentor No. 325

325-4: Restoration of the Hanford Site and waste management activities are the primary missions at Hanford.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

**Commentor No. 326: Hyun Lee
Heart of America Northwest**

Draft PEIS Comment Form

I agree, FFTF restart business
1) Restart of FFTF will lead to generation of what the Draft EIS refers to as "excess high-activity waste" that will sent to the evaporator tank feed existing treatment and vitrification for disposal. This waste will be stored in Hanford's FMEFP until 2007 when vit-plants will possibly be operable. This violates state and federal hazardous waste laws which allow only a few months of storage before waste must be disposed of. This is clearly violating state and federal laws.

2) Just the possibility of FFTF restart has delayed Hanford cleanup 2 buildings in the 300 Area (325 & 306F) which are high level waste for FFTF support are highly contaminated. They are being kept in place to maintain release levels back to the 60's.

3) Shipping FFTF wastes to "common/disposal facilities" violates existing USDOE policy that requires wastes to be sent only to NRC licensed facilities. The transfer of USDOE wastes to private facilities for disposal of FFTF wastes of USDOE wastes would violate the Tri-Party Agreement between states (Washington, Oregon, California) Federal Government, and FFTF wastes there would require USDOE to CERCLA joint.

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• commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

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7/12/00

Response to Commentor No. 326

326-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

326-2: As identified in Section 4.3.1.1.13 of the NI PEIS, the restart of FFTF would generate about 63 cubic meters of additional radioactive waste (e.g., solid low-level radioactive waste) annually, in addition to nonhazardous wastes. This would account for about 2,205 cubic meters of additional radioactive waste to be generated over the 35-year period of nuclear infrastructure operations and is small in comparison to the waste generated by current Hanford activities. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision.

The use of proposed alternative facilities associated with processing of neptunium-237 targets would have no impact on schedules or available funding for high-level radioactive waste programs at Hanford. The higher activity waste would be treated as a solid form via a stand-alone vitrification system, separate from any tank waste treatment system. Therefore, the existing Hanford high-level radioactive waste facilities would not be used, and as analyzed in the PEIS, no existing or planned high-level radioactive waste facilities would be used to treat the wastes resulting from processing the irradiated targets.

326-3: Hanford Site environmental restoration activities, including those involving the Hanford 300 Area, are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy. This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

The consideration of FFTF for the NI PEIS mission has not impacted any Hanford cleanup projects, except for a Tri-Party Agreement change involving the FFTF status. The Department of Ecology, EPA, and DOE agreed to the change to place the milestones for FFTF's permanent

Commentor No. 326: Hyun Lee (Cont'd)
Heart of America Northwest

Response to Commentor No. 326

deactivation in abeyance until the DOE reaches a decision on FFTF's future. Public meetings were held on this formal milestone change. The DOE missions would also have no impact on future Hanford cleanup activities.

The 306-E facility is not contaminated and is being proposed as a location to conduct activities that involve no radioactive materials. While the 325 Building has an inventory of radionuclides associated with ongoing activities at the facility, the building is not contaminated in worker accessible areas. Operations at the 325 Building are conducted in accordance with applicable federal and state regulations and appropriate DOE Orders.

The 300 Area Revitalization Plan (DOE 1999) provides for continued multi-program R&D operations in the 300 Area, including operation of various laboratories, office facilities, and services. It also provides for consolidation (but not complete elimination) of radiological operations, with support for Hanford Site facility transition and environmental restoration efforts. The plan does not require closure of the 325 and 306 E buildings as long as they are needed for active research projects. Operation of these facilities would not violate any existing agreements between DOE and stakeholders or other legal obligations, nor would it affect ongoing or planned environmental restoration and facility transition activities.

326-4: DOE Order 435.1 "Waste Management" gives responsibility to the DOE Field Element Managers to approve exemptions for use of non-DOE facilities for the storage, treatment or disposal of DOE radioactive waste based on certain requirements. One of these requirements is that the facility must have the necessary permits, licenses, and approvals for the specific waste.

As discussed in DOE's "Commercial Disposal Policy Analysis for Low Level and Mixed Low-Level Wastes" dated March 9, 1999, there are three commercial low-level radioactive waste disposal facilities (i.e., Envirocare of Utah; Barnwell, South Carolina; and U.S. Ecology, Richland, Washington) which are currently operating and licensed to receive low-level radioactive waste. Envirocare of Utah also has a permit to receive RCRA hazardous wastes. DOE has and is currently disposing of low level radioactive waste and mixed low-level radioactive waste at Envirocare of Utah and has sent low-level radioactive waste to Barnwell, South

Commentor No. 326: Hyun Lee (Cont'd)
Heart of America Northwest

Response to Commentor No. 326

Carolina. In June 1995, U.S. Ecology submitted an unsolicited proposal to DOE for the disposal of DOE waste at the U.S. Ecology facility. In November 1995, the State of Washington informed U.S. Ecology and DOE that the State would allow the disposal of DOE waste at the facility subject to certain conditions.

Commentor No. 327: D. Doyle

Draft PEIS Comment Form

We have a scant ten to twenty five years before the high level liquid nuclear waste slimes begin to enter the Columbia river from Hanford. In the mean time, the slimes continue at Hanford to seep into the PFIS reactor. Any action ~~on~~ on site should be elevated to protecting our river and our ecology until chemical threats in the groundwater, from the tanks and K-basins are eliminated.

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

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NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



Response to Commentor No. 327

327-1

327-1: DOE notes the commentor's concerns regarding the existing cleanup mission and migration of contaminants to the Columbia River. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

The Hanford Site has a comprehensive waste minimization and pollution prevention program in place, as summarized in Section 3.4.11.8 of Volume 1, that would govern any proposed site activities.

Commentor No. 328: Anonymous

Response to Commentor No. 328

Draft PEIS Comment Form

The 3 major reasons that the PEIS is giving to restart the FFTF. (1) Medical Isotopes: to help fight cancer. My response: We must realize that we cause cancer. Our environment is making us sick!!! If we start the FFTF we will make more people sick. We need to stop looking for a cure & start looking for a cause - which isn't too hard to find. (2) We can't drink our water because of WASTE!!! (3) We have deadly air because of WASTE!!! A scan our ground won't be able to produce our food because of WASTE!!! If we're dead, money, jobs & politics are going to do us any good?

I am a breast cancer survivor, and I know it's because of the environment. I implore you - think

There are several ways to provide comments on the Nuclear Infrastructure of our future. Let's stop thinking about ourselves.

- attending public meetings and giving your comments directly to DOE officials
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- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): _____

Organization: _____

Home/Organization Address (circle one): _____

City: _____ State: _____ Zip Code: _____

Telephone (optional): _____

E-mail (optional): _____

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7/12/00

328-1

328-1: The commentor's position regarding restart of FFTF is noted. The PEIS provides estimates of the human health impacts associated with a range of reasonable alternatives (which includes restart of FFTF) for the production of isotopes for medical uses, research and development, and as sources for radioisotope power systems. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1 (which includes restart of FFTF), including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small.

328-2

328-2: No food, water, or air restrictions are in place outside the Hanford Reservation as a result of Hanford activities.

Commentor No. 329: Anonymous

Draft PEIS Comment Form

Information about the specific isotopes involved is not adequate. The isotopes are not listed, nor the amounts needed, nor the other sources. Also, future needs are not adequately addressed.

329-1

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Name (optional): _____

Organization: _____

Home/Organization Address (circle one): _____

City: _____ State: _____ Zip Code: _____

Telephone (optional): _____

E-mail (optional): _____

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NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Response to Commentor No. 329

329-1: DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings. Section 1.2.1 of Volume 1 was revised to incorporate this information and to clarify DOE's role in fulfilling the U.S. research and commercial isotope production needs.

For the purposes of analyses in the NI PEIS, a representative set of isotopes was selected on the basis of the recommendations of the Expert Panel, medical market forecasts, reviews of medical literature, and more than 100 types of ongoing clinical trials that use radioisotopes for the treatment of cancer and other diseases. This set includes both reactor- and accelerator-produced isotopes, and is listed in Table 1-1 of Volume 1 along with a brief description of their medical and/or industrial applications. Although these isotopes are a representative sample of possible isotopes which could be produced, DOE expects that the actual isotopes and specific amounts produced as a result of the proposed action would vary from year to year in response to the focus of clinical research and the specific market needs occurring at that time.

Commentor No. 330: William A. Dautel

Response to Commentor No. 330

Draft PEIS Comment Form

The PEIS provides "negative" risk statistics relative to all facets of EFTF operation and product handling. These are normally in terms of latent cancer fatalities.

If cancer effects are pertinent, then the TOTAL effects MUST BE estimated. The PEIS needs to estimate the number of cancer lives SAVED.

For example, the conclusion of the EIS might conclude:

For each year of EFTF operation
of new cancers: 10^{-6} # of cancer patients saved: 1000

↳ Whereas the number, the contrast needs to be shown.

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

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7/12/00

330-1

330-1: Medical isotope production has been identified as one of the purposes and needs (Chapter 1 of Volume 1) for which DOE action is necessary. The NI PEIS addresses the impacts of the production of radioisotopes for this purpose. Although the 12 million medical procedures a year utilizing radioisotopes result in significant health benefits to the public, the impact of the use of the radioisotopes is not within the scope of the environmental impacts of the production of the isotopes.

Commentor No. 331: Magna Sundstrom

Draft PEIS Comment Form

As a citizen of the Northwest it baffles me that you would consider ANYTHING at the Hanford nuclear reservation that would add more waste. The contamination problems are so bad we already are seeing the beginning effects of the nuclear arms race. During my involvement in this issue I have seen two high level waste tanks start leaking, two releases of Strontium-90 detected, one of Iodine and one of plutonium. This all during a year and a half restart of FFTF with only acid to this problem of waste and slow down clean-up. The bottom line is we need to be focusing solely on clean up. Hanford is the 2nd most contaminated site in the world I am not willing to wait around for this to blow up in our faces. **CLEAN UP HANFORD**
DO NOT RE-START THE FFTF REACTOR!

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

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Organization: _____

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City: Bothell State: WA Zip Code: 98011

Telephone (optional): _____

E-mail (optional): _____

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7/12/00

Response to Commentor No. 331

331-1: DOE was tasked by Congress in the Atomic Energy Act of 1954, as amended, to "ensure the availability of isotopes for medical, industrial, and research applications, meeting the nuclear material needs of other federal agencies, and undertaking research and development of activities related to development of nuclear power for civilian use." The purpose of this PEIS is to determine the environmental and other impacts to accomplishing this mission from all reasonable existing and new DOE resources. The FFTF at the Hanford Site was one of several existing DOE resources that was assessed for this mission.

DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The DOE missions delineated in the NI PEIS would not have an impact on Hanford cleanup activities.

Management of wastes that would be generated under implementation of Alternative 1 (Restart FFTF) is discussed in Section 4.3 of Volume 1 (e.g., see Section 4.3.1.1.13). Section 4.3.1.1.13 was revised to clarify that, the Hanford waste management infrastructure is analyzed in this PEIS for the management of waste resulting from FFTF restart and operation. This analysis is consistent with policy and DOE Order 435.1, that DOE radioactive waste shall be treated, stored, and in the case of low-level waste, disposed of at the site where the waste is generated, if practical; or at another DOE facility. However, if DOE determines that use of the Hanford waste management infrastructure or other DOE sites is not practical or cost effective, DOE may issue an exemption under DOE Order 435.1 for the use of non-DOE facilities (i.e., commercial facilities) to store, treat, and dispose of such waste generated from the restart and operation of FFTF. In addition, Section 4.3.3.1.13 and 4.4.3.1.13 also address the potential impacts associated with the waste generated from the target fabrication and processing in FMEF and how this waste would be managed at the site.

331-2: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

Commentor No. 332: Tamara Travers

Response to Commentor No. 332

Draft PEIS Comment Form

Shut the FFTF Reactor down
Hanford is already the most contaminated
site in the western hemisphere,
second only to Chernobyl. We need to
clean up the waste we already
have produced rather than
producing more waste while we
can't afford to clean up the waste
we already have. There are 107
high-level nuclear waste tanks
located along the Columbia
river, threatening are health even
more. FFTF was supposed to have
been shut down 5 years ago according
to the Tri-Party Agreement. Please
shut FFTF down for good and turn
your focus to clean up!

332-1

332-1: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

332-2

332-2: DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. A Tri-Party Agreement change was made to place the milestones for FFTF's permanent deactivation in abeyance until the DOE reaches a decision on whether the facility will be used to meet mission needs. Public meetings were held on this formal milestone change.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

The Hanford Site has a comprehensive waste minimization and pollution prevention program in place, as summarized in Section 3.4.11.8 of Volume 1, that would govern any proposed site activities.

~~Please send me a response to my comments~~

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): Tamara Travers

Organization: _____

Home/Organization Address (circle one): 4605 Woodlawn Ave N

City: Seattle State: WA Zip Code: 98103

Telephone (optional): (206) 860-9668

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Cassie E. Brown, NE-50
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free Telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/12/00

Commentor No. 333: Marjorie Rhodes

Draft PEIS Comment Form

many non-governmental organizations and individuals oppose restarting FSTF nuclear reactor. When people organize and work together we can make a difference, as we proved here in Seattle Nov 30, 1999. If people coming together could shut down the WTO we can also shut down nuclear power plants through mass demonstrations which educate the public. Listen to the people and not the special interests.

Let's not have anymore hidden facts or other cover-ups by the Dept. of Energy. There are people watching who will expose these cover-ups.

also your hand-outs are blatantly biased in favor of corporate interests. why? your hand-outs even look like slick propaganda typical of big corporate interests.

P.S. The use of paper for these hearings is shameful disregard for the environment.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Marjorie Rhodes

Organization: 8521 17th NE

Home/Organization Address (circle one): _____

City: Seattle State: WA Zip Code: 98115

Telephone (optional): _____

E-mail (optional): none

COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Collette E. Brown, NE-50
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free telephone: 1-877-562-4593 • Toll-free fax: 1-877-562-4592
Email: Nuclear.Infrastructure-PEIS@hq.doe.gov

7/12/00

333-1

Response to Commentor No. 333

333-1: DOE notes the commentor's opinion regarding opposition to the restart of FSTF. It is DOE policy to encourage public input on matters of regional, national and international importance. In compliance with NEPA and CEQ regulations, DOE provided opportunity to the public to comment on the environmental impact analysis of DOE's proposed alternatives for meeting mission requirements. In preparing the Final NI PEIS, DOE carefully considered comments received from the public.

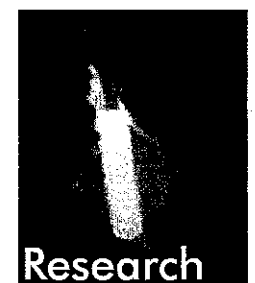
This NI PEIS has been prepared in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR Parts 1500 through 1508 and 10 CFR Part 1021), respectively. The environmental impacts of reasonable alternatives to fulfill the requirements of the missions were disclosed and evaluated in the NI PEIS. DOE made every effort to obtain, analyze, and disclose all required information to make a decision on expanding nuclear infrastructure. All references used in preparing the NI PEIS are cited in the reference section of each chapter and appendix. DOE has made these references and other material relevant to review of the NI PEIS available to the public in the designated public reading rooms.

The handouts provided during the public hearings were intended to convey pertinent information on the DOE missions and options for accomplishing them, as well as to provide other relevant background material, in a clear and concise manner for the benefit of the public. The handouts are not intended to promote any particular alternative or corporate, institutional, or government interest in the decisions to be made but rather to communicate the reach and importance of such decisions to the public as a whole.

The commentor's concern for the use of paper for the public hearings is noted. DOE is committed to the principles of waste minimization and pollution prevention, and all public informational materials and this NI PEIS are printed with soy ink on recycled paper. Electronic publishing via the Internet is also used extensively by DOE for NEPA analyses and many other types of documents in order to reduce publication costs and material usage. However, it is customary to provide copies of fact sheets, public comment forms, hearing evaluation forms, and other information materials as a convenience to the public and to ensure that those attending are as fully informed as possible as to the matters on which public input is being solicited. The provision of such materials at

Commentor No. 333: Marjorie Rhodes (Cont'd)

Isotopes for Medicine and Science



Mission and Visions

The mission of the U.S. Department of Energy's (DOE's) Office of Isotopes for Medicine and Science is to meet the national need for a reliable supply of isotope products and services for medicine, industry, and research. Its vision is to ensure the reliable supply and development of isotopes to meet customers' changing needs through cost-effective use of unique Government facilities to complement and encourage private sector capabilities.

Overview

DOE produces and sells hundreds of stable and radioactive isotopes for commercial uses, medical applications, and research purposes throughout the United States and to approximately 25 other countries. Products and services are provided that are not readily available commercially but are required by domestic and international customers for a variety of purposes. Program goals are to:

- Provide a reliable supply of quality products and services based on customers' needs
- Develop new isotopes and isotope application technologies to meet future national needs
- Manage and operate the Office of Isotopes for Medicine and Science in a cost-effective manner that best serves the interests of customers and the U.S. taxpayer

Description

The Office of Isotopes for Medicine and Science operates by using a revolving fund and maintains financial viability through sales revenues and annual appropriations from Congress. DOE is the only U.S. source of many important isotopes.

- Isotopes for research are made available at prices that support a reasonable return to the Government but do not discourage their use.
- Commercial isotopes are sold on a cost-recovery basis.

In fiscal year 1999, this program served a total of 380 customers, generating revenues of \$10.1 million.

Facilities and Capabilities

This program maintains production sites at several of DOE's national laboratories, including Oak Ridge, Los Alamos, Brookhaven, and Sandia. These laboratories offer unique isotope production and separation facilities and processes such as reactors, associated hot cells, and accelerators.

For more information contact: Colette E. Brown, NE-50
U.S. Department of Energy • 19001 Germantown Road • Germantown, MD 20874
Toll-free telephone: 1-877-552-6593 • Toll-free fax: 1-877-562-6592
E-mail: NuclearInfrastructure-PES@hq.doe.gov



08/15/00

Response to Commentor No. 333

public hearings is in part in response to feedback from other public hearing attendees. Of course, persons attending the hearing could elect to forgo handouts and public comment forms. A presentation was provided by DOE at the start of the hearings and poster boards were on display as alternative means of communicating key points of information. Comments by attendees could be made orally to a comment recorder or submitted via one of the other means provided (i.e., U.S. mail, e-mail, a toll-free fax number, and a toll-free phone number) in lieu of a completed comment form.

- 333-2: As referenced in DOE's response to the commentor's previous comment 333-1), the fact sheet handouts are not biased. In particular, the fact sheet questioned by the commentor is intended to provide a summary of the mission drivers behind the medical and industrial isotope production mission and to serve as an aid to the public in understanding one of the three missions identified in the PEIS. Fact sheets for the other two missions were also provided for information purposes.

Commentor No. 333: Marjorie Rhodes (Cont'd)

Response to Commentor No. 333

DOE

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



Isotope Uses

Isotopes save lives: they help doctors diagnose illnesses and treat diseases. They also make our lives safer. A radioisotope is used in smoke detectors; another detects explosives in luggage at airports. Radioisotopes are used in devices for manufacturing many of the products we use regularly including plastic wrap, radial tires, and coffee filters.

Medicine

Nearly every aspect of medicine involves the use of isotopes.

- Radioisotopes are used in a process called nuclear imaging to diagnose various diseases in certain organs. An estimated 10 million nuclear-imaging procedures are performed each year just in the United States.
- Radioisotopes are used to identify cardiac conditions, to locate cancers, and to treat health problems including cardiovascular disease, leukemia, and other types of cancers.
- Thirty percent of all biomedical research involves the use of radioisotopes. At least 80 percent of all new drugs approved for use today result from research using radioisotopes. Medical researchers are now using radioisotopes to find cures for AIDS, Parkinson's disease, and diabetes.

Industry

There is a wide range of industrial applications for radioisotopes including such diverse activities as:

- Production quality control
- Product testing
- The manufacture of fuel for nuclear power plants

Isotopes are also used to detect cracks and leaks in underground pipes and gas lines and to ensure the strength of high-rise buildings and bridges. Smoke detectors use a small amount of the isotope americium-241 to trigger an alarm when smoke is present.

Agriculture

Radioisotopes are also used in agriculture to:

- Produce higher-yielding food crops
- Preserve food products
- Trace fertilizer uptake in plants
- Develop seeds with improved disease resistance and product yields
- Extend the shelf life of certain foods
- Produce the shrink wrap used to package food

These processes do not make food radioactive.

Advanced Nuclear Medicine Initiative

The Advanced Nuclear Medicine Initiative will support peer-reviewed research to further advance nuclear medicine technology in the United States. Three major elements comprise this initiative.

- 1) Sponsor nuclear medical science using a peer-review selection process. DOE's support is in two forms: direct research grants, and making isotopes available for research at prices that researchers can afford.
- 2) Encourage the training of individuals in nuclear medicine methods by establishing scholarships and fellowships for nuclear medicine specialists and by sponsoring summer internships at appropriate institutions.

ISOTOPES FOR MEDICINE AND SCIENCE

Commentor No. 333: Marjorie Rhodes (Cont'd)

- 3) Initiate a focused program to apply alpha-emitting isotopes available in the United States from DOE to fight a spectrum of malignancies, including most common cancers, and infectious diseases, such as meningitis and AIDS. Additional applications may include treatment of other immune disorders and of rheumatoid and degenerating joint diseases.

Privatizing Isotope Activities

DOE is seeking opportunities for private industry to assume control of some or all of its isotope production and distribution activities. This could reduce annual appropriation requirements, enhance U.S. economic competitiveness, create private sector jobs, and reduce the costs to the U.S. taxpayer.

Internet Addresses

- U.S. Department of Energy
Catalog of Radioactive and Stable Isotopes:
www.ornl.gov/isotopes/catalog.htm
- Society of Nuclear Medicine:
www.snm.org
- National Institutes of Health:
www.nih.gov
- U.S. Nuclear Regulatory Commission:
www.nrc.gov
- U. S. Department of Energy:
www.doe.gov
- U.S. Department of Energy
Office of Nuclear Energy, Science and Technology:
www.ne.doe.gov
- International Atomic Energy Agency:
www.iaea.org

08/15/00

FAST FACTS

Thousands of lives and millions of dollars are saved every year because of medical isotope procedures.

- One of every three persons admitted to U.S. hospitals undergoes a medical procedure that uses medical radioisotopes including the diagnosis and treatment of heart disease, arthritis, cancer brain scans, bone scans, diagnosis of AIDS, Alzheimer's, and many other maladies.
- Isotope use is critical to ensuring structural safety for dams, aircraft, bridges, and piping.
- The Department of Energy is seeking opportunities for private industry to assume control of some or all of its production and distribution activities.

ISOTOPES FOR MEDICINE AND SCIENCE

page 3

Response to Commentor No. 333

Commentor No. 333: Marjorie Rhodes (Cont'd)

Medical and Industrial Isotope Production

The U.S. Department of Energy (DOE) is responsible for ensuring a reliable supply of isotopes not available in the marketplace and a supply of commercial isotopes that can only be produced in unique DOE facilities. With the anticipated increase in demand for medical and industrial isotopes, DOE is evaluating the capabilities of its existing facilities and determining its future ability to meet these obligations.

DOE Office of Isotopes for Medicine and Science

The mission of DOE's Office of Isotopes for Medicine and Science is to meet the national need for a reliable supply of isotope products and services for medicine, industry, and research. Isotopes are produced by DOE only where there is no U.S. private sector capability or when the private sector's production capacity is insufficient to meet U.S. needs. DOE encourages private sector investment in new isotope production ventures and will sell or lease its existing facilities and inventories for commercial purposes.

Medical Isotope Uses

Nearly every aspect of medicine involves the use of isotopes, including diagnosis, treatment of several major diseases, and biomedical research.

Diagnostic Isotopes

Diagnostic isotopes are used for imaging internal organs. Unlike conventional radiology, imaging with isotopes reveals organ function and structure and provides more accurate diagnostic information.

An estimated 10 million nuclear-imaging procedures are performed each year in the United States. In these procedures, a patient is given a specific isotope in the form of a radiopharmaceutical. A camera can then trace the radiopharmaceutical through the body, providing pictures of alterations caused by disease. For example, during brain scans, an

isotope traces brain activity to give doctors a clear picture of whether the brain is functioning normally.

Therapeutic Isotopes

Therapeutic isotopes play an important role in effectively treating diseases. For example, isotopes are used in radiotherapy to destroy cancerous cells, to help arteries stay unclogged after coronary angioplasty, and to alleviate arthritis pain.

A recently developed technique being used in several trial studies is called cell-directed localized radiation therapy. This therapy, also referred to as "smart bullets," uses isotopes linked to cancer-seeking antibodies. The antibodies act as "homing" materials that seek and attach themselves to cancer cells and in the process deliver the isotope to the cancer cell. This directed therapy results in effectively killing the cancer cell but not the surrounding cells, thus minimizing the debilitating side effects seen with chemotherapy or full body radiation.

Biomedical Research

Thirty percent of all biomedical research involves the use of isotopes. At least 80 percent of all new drugs approved for use today result from research using isotopes. Medical researchers are now using isotopes in the search for cures for AIDS, Parkinson's disease, and diabetes.

Industrial Isotope Uses

Industrial isotope applications fall into three broad categories: nucleonic instrumentation, irradiation and radiation processing, and radioactive tracers.

Nucleonic Instrumentation

Nucleonic instruments contain radioactive isotopes. Some of these instruments are used for detecting and/or measuring quantities of pollutants, explosives, drugs, ores, petroleum, and natural gases. As an example, smoke detectors use a small amount of americium-241 to trigger an alarm when smoke is present.

333-2

Response to Commentor No. 333



Commentor No. 333: Marjorie Rhodes (Cont'd)

Response to Commentor No. 333



NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Other instruments are used for nondestructive testing of materials. For example, iridium-192 is used to detect cracks and leaks in underground pipes and gas lines or in high-rise buildings, bridges, or aircraft.

Irradiation and Radiation Processing

Traditionally, medical products are sterilized in autoclaves at high temperatures and pressures. However, high heat can damage some medical products and equipment. Cobalt-60 is used to sterilize instruments that cannot be sterilized by other methods.

Radioactive Tracers

Isotopes can be used as tracers to follow atoms or molecules during studies. For example, isotopes are used to trace fertilizer and nutrient uptake in plants, to study chemical synthesis reactions, and to monitor the movement of materials through an industrial plant. Numerous isotopes are used as tracers in these applications.

Future Demand for Medical Isotopes

In 1998, an Expert Panel convened by DOE was asked to provide its analysis of the current and future medical isotope demands. The Expert Panel also developed a list of isotopes for DOE to consider for production. The Expert Panel findings include the following.

- The growth rate of medical isotope usage could be significant over the next 20 years. A 7-14 percent increase is predicted for therapeutic applications and a 7-16 percent increase is expected for diagnostic applications. This projected growth in demand for isotopes is contingent on continued Government support for basic research and technological improvements in nuclear medicine.

- Due to the development of new uses of medical isotopes and the limited number of facilities to produce isotopes, shortages of some major isotopes are expected.
- There is not a reliable supply of research isotopes produced at a reasonable cost. Without an adequate supply of high-quality, exotic isotopes, nuclear medicine cannot develop.
- The United States is over dependent on foreign isotope production.
- DOE's infrastructure for producing medical isotopes is diminishing due to changes in missions and aging facilities. It is unlikely that the existing infrastructure can support the rising demand for medical isotopes.

Based on its findings, the Expert Panel recommended that DOE and the National Institutes of Health develop the capability to produce a diverse supply of isotopes for medical use in quantities sufficient to support research and clinical activities. Such a capability would prevent shortages of isotopes, reduce American dependence on foreign isotopes, and stimulate biomedical research. They further recommended that this capability be built around either a reactor, an accelerator, or a combination of both so that isotopes for clinical and research applications can be supplied reliably.

MEDICAL AND INDUSTRIAL ISOTOPE PRODUCTION

Response to Commentor No. 334

334-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 334: Eunice Heaston

NI PEIS Toll-Free Telephone

8/31/00

Eunice Heaston
602-977-9178

Please restart the FFTF.

334-1

Commentor No. 335: Marilyn Savage
United Staff Nurses Union



UNITED STAFF NURSES UNION
UFCW Local 141



31620 23rd Avenue S. • Suite 304 • Federal Way, WA 98003 • (253) 946-1141 • 1-800-468-3856 • Fax (253) 946-1297

United Food and Commercial Workers Local 141, United Staff Nurses Union, is a state wide local union that represents registered nurses in 24 hospitals, clinics, and home health agencies throughout the State of Washington. Founded in 1989, the union's mission is not only to provide collective bargaining representation for registered nurses, but also to work with other health care providers to advocate for quality, affordable, and accessible health care for consumers.

The nurses we represent are a diverse group of professionals providing care to patients in traditional hospitals as well as community settings. Some of these community settings are home health and hospice care. We care for patients who are diagnosed with cancer everyday. We see first hand the suffering that some must endure, not only from the disease that has ravished them, but from the treatment that, hopefully, benefits them. We watch as cancer racks their bodies with pain, and chemotherapy or radiation treatments cause unbearable side effects.

It is for these reasons that we support the use of the Fast Flux Test Facility for the production of medical isotopes for cancer treatment and research. We know that many research projects have been stalled or stopped because of a shortage of isotopes. We also know that continued research will benefit cancer patients.

We urge the Secretary of Energy, Bill Richardson, and the Department of Energy to restart the Fast Flux Test Facility for the vital mission of the production of medical isotopes for the treatment of cancer and cancer research.

Marilyn Savage
President

335-1

Response to Commentor No. 335

335-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 335: Marilyn Savage (Cont'd)
United Staff Nurses Union

**Support of Medical Isotope Production at
the Fast Flux Test Facility**

- Whereas, One in three Americans die each year by cancer, and
- Whereas, The use of medical isotopes in the treatment of cancer and heart disease is showing very encouraging and dramatic results. These new treatments use radioisotopes to target and destroy the diseased cells and minimize the damage to healthy cells. The cost of medical isotope treatment is often much less than conventional treatment and with less debilitating results; and
- Whereas, Serious concern among cancer patients and medical professions that the United States does not have the capability to produce enough radioisotopes to meet the rapidly increasing demand, with the demand on foreign supplies as over 90% of the isotopes currently used are imported; and
- Whereas, Private companies that produce new cancer treatments hesitate to invest millions of research dollars unless the isotopes they want to use may not be reliably available; and
- Whereas, The existing Fast Flux Test Facility (FFTF) can reliably produce a diverse selection and large quantities of high quality isotopes; and
- Whereas, The FFTF is a significant research asset as it is the Department of Energy's newest and most sophisticated reactor with the potential to play a major role in supporting critical scientific programs, various medical isotope production for treatments of cancer, heart disease, bone testing, research associated with the transmission of nuclear energy, NASA space mission energy needs, and other scientific research; and
- Whereas, The United States has the aging and deteriorating reactor inventory for scientific research and testing, while at the same time the United States is experiencing an increasing demand for the production of isotopes for medical and industrial applications; therefore,

BE IT RESOLVED that the United Staff Nurses Union support a restart of the Fast Flux Test Facility to serve as a multi-purpose research and isotope production reactor.

(Signed)

(Date)

8/29/00

Response to Commentor No. 335

Commentor No. 335: Marilyn Savage (Cont'd)
United Staff Nurses Union

Response to Commentor No. 335

**Support of Medical Isotope Production at
the Fast Flux Test Facility**

- Whereas, One in three Americans are touched by cancer, and
- Whereas, The use of medical isotopes in the treatment of cancer and heart disease is showing very encouraging and dramatic results. These new treatments use radioisotopes targeted specifically to the diseased cells and minimize the damage to healthy cells. The cost of medical isotope treatment is often much less than conventional treatments and with less debilitating results; and
- Whereas, Serious concern exists in the scientific and medical professions that the United States does not have the capability to produce enough radioisotopes to meet the rapidly increasing demand, while we depend on foreign supplies as over 90% of the isotopes currently used are imported; and
- Whereas, Private companies that develop new cancer treatments hesitate to invest millions of research dollars up front when the isotopes they want to use may not be reliably available; and
- Whereas, The existing Fast Flux Test Facility (FFTF) can reliably produce a diverse selection and large quantities of high quality isotopes; and
- Whereas, The FFTF is a significant national asset as it is the Department of Energy's newest and most sophisticated nuclear reactor with the potential to play a major role in supporting critical national missions such as medical isotope production for treatments of disease, non-proliferation tests testing, research associated with the transmutation of nuclear waste, NASA space mission energy needs, and other scientific research; and
- Whereas, The United States has an aging and diminishing reactor inventory for scientific research and testing, while at the same time the United States is experiencing an increasing demand for the production of isotopes for medical and industrial applications; therefore

BE IT RESOLVED that the United Staff Nurses Union support a restart of the Fast Flux Test Facility to serve as a multi-mission research and isotope production reactor.

Michael J. Sullivan
 (Signed)

8-24-00
 (Date)

Commentor No. 335: Marilyn Savage (Cont'd)
United Staff Nurses Union

**Support of Medical Isotope Production
 at the Fast Flux Test Facility**

- Whereas, One in three Americans are touched by cancer, and
- Whereas, The use of medical isotopes in the treatment of cancer and heart disease is showing very encouraging and dramatic results. These new treatments use radioisotopes targeted specifically to the diseased cells and minimize the damage to healthy cells. The cost of medical isotope treatment is often much less than conventional treatments and with less debilitating results; and
- Whereas, Serious concern exists in the scientific and medical professions that the United States does not have the capability to produce enough radioisotopes to meet the rapidly increasing demand, while we depend on foreign supplies as over 90% of the isotopes currently used are imported; and
- Whereas, Private companies that develop new cancer treatments hesitate to invest millions of research dollars up front when the isotopes they want to use may not be reliably available; and
- Whereas, The existing Fast Flux Test Facility (FFTF) can reliably produce a diverse selection and large quantities of high quality isotopes; and
- Whereas, The FFTF is a significant national asset as it is the Department of Energy's newest and most sophisticated nuclear reactor with the potential to play a major role in supporting critical national missions such as medical isotope production for treatments of disease, non-proliferation fuels testing, research associated with the transmutation of nuclear waste, NASA space mission energy needs, and other scientific research; and
- Whereas, The United States has an aging and diminishing reactor inventory for scientific research and testing, while at the same time the United States is experiencing an increasing demand for the production of isotopes for medical and industrial applications; therefore

BE IT RESOLVED that the ~~(OFFICIAL USE ONLY)~~ support a restart of the Fast Flux Test Facility to serve as a multi-mission research and isotope production reactor.

Robert K. Frensch
 (Signed)

8-23-00
 (Date)

Response to Commentor No. 335

Commentor No. 335: Marilyn Savage (Cont'd)
United Staff Nurses Union

**Support of Medical Isotope Production
 at the Fast Flux Test Facility**

- Whereas, One in three Americans are touched by cancer, and
- Whereas, The use of medical isotopes in the treatment of cancer and heart disease is showing very encouraging and dramatic results. These new treatments use radioisotopes targeted specifically to the diseased cells and minimize the damage to healthy cells. The cost of medical isotope treatment is often much less than conventional treatments and with less debilitating results; and
- Whereas, Serious concern exists in the scientific and medical professions that the United States does not have the capability to produce enough radioisotopes to meet the rapidly increasing demand, while we depend on foreign supplies as over 90% of the isotopes currently used are imported, and
- Whereas, Private companies that develop new cancer treatments hesitate to invest millions of research dollars up front when the isotopes they want to use may not be reliably available, and
- Whereas, The existing Fast Flux Test Facility (FFTF) can reliably produce a diverse selection and large quantities of high quality isotopes; and
- Whereas, The FFTF is a significant national asset as it is the Department of Energy's newest and most sophisticated nuclear reactor with the potential to play a major role in supporting critical national missions such as medical isotope production for treatments of disease, non-proliferation fuels testing, research associated with the transmutation of nuclear waste, NASA space mission energy needs, and other scientific research; and
- Whereas, The United States has an aging and diminishing reactor inventory for scientific research and testing, while at the same time the United States is experiencing an increasing demand for the production of isotopes for medical and industrial applications; therefore

BE IT RESOLVED that the (USNUN Local 141) support a restart of the Fast Flux Test Facility to serve as a multi-mission research and isotope production reactor.

Marilyn Savage, RN
 (Signed) *President*

8-12-2000
 (Date)

Response to Commentor No. 335

Commentor No. 336: Joan Claybrook Public Citizen



Buyers Up • Congress Watch • Critical Mass • Global Trade Watch • Health Research Group • Litigation Group
Joan Claybrook, President

Comments of Public Citizen's Critical Mass Energy & Environment Program
on the Department Of Energy's *Draft* Programmatic Environmental Impact Statement
for
Accomplishing Expanded Civilian Nuclear Energy Research and Development and
Isotope Production Missions in the United States, Including the Role of the
Fast Flux Test Facility (DOE/EIS-0310D)

August 30, 2000

Thank you for the opportunity comment on the U.S. Department of Energy's (DOE) draft programmatic environmental impact statement (PEIS) on the nuclear infrastructure including resuming operation of the Fast Flux Test Facility (FFTF) at the Hanford Nuclear Reservation. I am Wenonah Hauter, Director of Public Citizen's Critical Mass Energy Project, a non-profit research, lobbying, and advocacy organization founded by Ralph Nader in 1971.

The Nuclear Infrastructure *Draft* PEIS evaluates the environmental impacts of several options:

No Action

1. Restart the Fast Flux Test Facility;
2. Use only existing operational facilities;
3. Construct one or two new accelerators;
4. Construct a new research reactor;
5. Permanently deactivate the FFTF.

As we noted in our previous comments, conducting a PEIS on the production of isotopes in the FFTF was an unnecessary waste of taxpayer money. Instead of seeking new missions for the reactor, the DOE should have used its resources to permanently decommission the plant, which if restarted would pose a threat to the public's health and safety. Once again the Department of Energy is squandering taxpayer dollars looking to restart a dangerous reactor or construct new reactors and accelerators. The options that DOE has put forth are unneeded, uneconomical and unsafe. Accordingly, Public Citizen supports option 5 to permanently deactivate the fast flux test facility.

The FFTF was closed in 1983 because new missions could not be identified. In 1993, an independent review team reported that no combination of missions would be financially viable over the next ten years. Despite these findings, the DOE has prolonged the inevitable and used this process to propose other nuclear boondoggles.

Ralph Nader, Founder

215 Pennsylvania Ave SE • Washington, DC 20003 • (202) 546-4996 • www.citizen.org

Response to Commentor No. 336

336-1: DOE notes the commentor's opposition to enhancing its existing nuclear facility infrastructure. Consistent with its mandates under the Atomic Energy Act, DOE is seeking to maintain and enhance its infrastructure for the purposes of addressing three primary needs: 1) to support the increased domestic production of isotopes for medical, research, and industrial uses, as initially identified by a panel of experts in the medical field and reaffirmed by the Nuclear Energy Research Advisory Committee; 2) to support future NASA space exploration missions by re-establishing a domestic capability to produce plutonium-238, a fuel source that is required for deep space missions and for which the U.S. has no long-term, assured supply; and 3) to support civilian nuclear research and development in order to maintain the clean, safe, and reliable use of nuclear power as a viable component of the United States' energy portfolio. Section 1.2. of Volume 1 has been revised to clarify the purpose and need of the proposed action.

The NI PEIS evaluates the environmental impacts of a range of reasonable alternatives for accomplishing this mission. In addition to restarting the FFTF, the NI PEIS also evaluates alternatives that would either employ the use of existing facilities or rely on the construction of new facilities. Potential health and safety impacts associated with normal operations, facility accidents, and transportation as a result of the proposed action are relatively low and are discussed in detail in Chapter 4 of Volume 1 (e.g. Sections 4.3.1.1.9, 4.3.1.1.10, 4.3.1.1.11) and Appendixes H, I, and J in Volume 2 of the Final NI PEIS.

DOE notes the commentor's opposition to Alternative 1, Restart FFTF, Alternative 3, Construct New Accelerator(s); and Alternative 4, Construct New Research Reactor.

336-2: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

336-3: The restart of FFTF or use of any of the other proposed alternative facilities would not have an impact on the schedule or available funding for existing cleanup activities at Hanford, INEEL, or ORR. As identified in Section 4.3.1.1.13 of the NI PEIS, the restart of FFTF would generate about 63 cubic meters of additional radioactive waste (e.g., solid low-level radioactive waste) annually, in addition to nonhazardous wastes. This would account for about 2,205 cubic meters of additional radioactive waste to be generated over the 35-year period of nuclear infrastructure

Commentor No. 336 : Joan Claybrook (Cont'd)

The absence of any credible mission for the FFTF is instructive. We do not need to restart this dangerous reactor, nor do we need the proposed alternatives of new reactors or accelerators. According to Dr. Janet Eary, Director of the University of Washington's Nuclear Medicine Department, "I see no shortage of radioactive isotopes for medical research and no need to restart this nuclear reactor to produce medical isotopes." Additionally, the continued production of radioactive waste either by the FFTF or one of the proposed alternative facilities will undermine DOE's clean up goals and further contaminate our air, water and land.

I'd specifically like to address the purported necessity of producing isotopes for food irradiation, the danger of creating more sealed sources of radiation, and the hazard to the public and the environment of restarting the reactor.

First, merely because the U.S. regulatory agencies have legalized irradiation does not mean consumers will buy irradiated food. Nothing is more important to most Americans than the health and safety of their families. Consumers are increasingly concerned about protecting their health. No long term studies have been done on the effects of food irradiation, and there is ample evidence that the process destroys vitamins and produces carcinogenic chemical compounds in food.

There is overwhelming evidence that Americans are skeptical of food irradiation. A 1997 poll conducted by CBS News found that 73 percent of the public opposes irradiation, and 77 percent of the public would not eat irradiated food. While the food and nuclear industries are telling the U.S. Food and Drug Administration (FDA) to stop requiring irradiated foods to be labeled, it is unlikely that they will be successful.

The FDA has received thousands of cards and letters demanding that it continue to require the labeling of irradiated food. A 1999 poll, jointly sponsored by the American Association of Retired Persons (AARP) and the Center for Science in the Public Interest (CSPI), found that 86 percent of Americans want irradiated food to be labeled.

However, even the economic interests that are promoting food irradiation do not necessarily believe that the use of radioactive isotopes Cesium 137 and Cobalt 60 is the best way to irradiate food. A large percentage of the industry intends to use the electron beam (also known as the e-beam) for irradiating food. The e-beam produces the same dangerous products in food as do radioactive isotopes, but it does not require the transport and use of radioactive material. The e-beam process utilizes an electronic machine called a linear accelerator to produce a stream of electrons moving at an extremely high speed. The beam disrupts the DNA structure of micro-organisms, rendering them sterile, it also creates chemical products ranging from formaldehyde and benzene to unnamed chemical compounds.

Titan Corporation, the leading provider of e-beam technology with its SureBeam subsidiary registered an initial public offering to spin off SureBeam. According to papers filed with the Securities and Exchange Commission the company states, "We have

336-1

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336-4

Response to Commentor No. 336

operations. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

The NI PEIS addressed the environmental impacts due to the treatment storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision.

336-4: The availability of radioisotopes for the purposes of food irradiation is not the focus of DOE's proposed action. Although radiation sterilization of food is a possible application for certain industrial radioisotopes, including cesium-137 and cobalt-60, DOE does not anticipate a similar need for increased production of radioisotopes used for these purposes.

Although not within the scope of the NI PEIS, DOE recognizes the importance of improving control of radioactive sources, and is working with EPA and NRC on developing a nation-wide disposition system for orphaned sources of radiation.

336-5: DOE notes the commentor's concerns regarding the existing cleanup mission and migration of contaminants to the Columbia River. Although beyond the scope of this NI PEIS, ongoing Hanford cleanup activities are high priority to DOE. Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

Commentor No. 336: Joan Claybrook (Cont'd)

a history of losses and we may not achieve or sustain profitability." The company has incurred operating losses in each quarter of its existence.

In addition, Food Technology Services, a Florida based company that irradiates food with gamma radiation, has lost \$9.2 million since it was founded in 1985.

Despite an unprecedented number of meat recalls this summer and numerous incidents of food-borne illness, the public is not clamoring for irradiated food. Test marketing results have been mixed at best - irradiated meat has yet to earn the public trust. Even with massive marketing campaigns and extensive advertising sales are slow.

Restarting the FFTF for the purpose of creating Cesium 137 or Cobalt 60 is completely unnecessary. Nor should food irradiation be used as a justification for moving ahead with the alternatives of a new reactor or accelerator. There is simply no public demand for irradiated food and the existing technologies and corporations are unable to turn a profit.

Second, the idea of creating more sealed sources of radiation is ludicrous, given the amount of money that the Environmental Protection Agency (EPA) is spending on locating "orphaned" radiation sources. EPA's Orphaned Source Initiative (OSI) is completing a nationwide survey to identify the location of lost radiation sources in the US, and is planning a one-year pilot "cesium source round-up" to remove radiation sources from the public domain. Unfortunately, while sealed radiation sources are licensed, their final disposition is not tracked. These orphaned radiation sources gain entrance into metal recycling facilities and cause catastrophic contamination of recycled metals.

The fact that DOE is attempting to engage in producing large numbers of sealed radiation sources for medical and industrial purposes is contrary to EPA's effort at rounding-up all radiation sources. Why is no coordination taking place between these two agencies?

Third, I would like to address the impact on human health and the environment of restarting the FFTF. At the Hanford nuclear reservation in Washington state, there are over 300 tanks boiling cesium and burping hydrogen while leaking radioactive wastes into the Columbia river. It seems absolutely ludicrous that the DOE would attempt to restart this controversial, accident prone nuclear reactor, which would likely compound the waste problems at Hanford.

According to the public-interest organization Columbia River United, Hanford has spewed over 444 billion gallons of radioactive and chemical waste into the soil of the Hanford site. Hundreds of billions of gallons of wastewater were discharged directly into the Columbia River. Soil and groundwater contamination has resulted in massive underground plumes of deadly materials moving toward and in some cases already reaching the Columbia River. The largest plumes contain nitrate and tritium. Other large plumes include uranium, strontium 90, and chromium. Contaminants include carbon

336-4
(Cont'd)

336-5

Response to Commentor No. 336

As identified in Section 4.3.1.1.13 of the NI PEIS, the restart of FFTF would generate about 63 cubic meters of additional radioactive waste (e.g., solid low-level radioactive waste) annually, in addition to nonhazardous wastes. This would account for about 2,205 cubic meters of additional radioactive waste to be generated over the 35-year period of nuclear infrastructure operations and is small in comparison to the waste generated by current Hanford activities. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders. The radioactive waste that would be generated from the restart of FFTF (e.g., low-level radioactive waste) would not be dispositioned in the Hanford waste tanks.

The potential health and environmental impacts associated with operation of the Hanford facilities during normal operations and from postulated accidents are presented in Section 4.3 of the PEIS. All impacts to human health and to ecological resources would be small in the immediate area and negligible at all distant locations.

The 200 Area Plateau at Hanford contains 177 underground waste storage tanks. None of the tanks currently generate a sufficient heat load to boil. Cesium and other high-heat load radionuclides were removed from the waste tanks years ago. Tanks that generate hydrogen gas have had engineered features installed to make the tanks safe from a flammable gas standpoint.

There have been no serious safety-related accidents or release of hazardous or radioactive material causing significant injury or harm to workers, or posing any threat or harm to the offsite public at FFTF during its operational lifetime.

No food or water restrictions are in place outside the Hanford Reservation as a result of Hanford activities.

Operations of FFTF have been and will continue to be conducted under Washington State discharge permits. Any future operations of the facility would therefore not contribute to any of the referenced conditions.

336-6: FFTF can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that

Commentor No. 336: Joan Claybrook (Cont'd)

tetrachloride, sodium dichromate, technitium-99, and ferro-cyanide. The groundwater in the area is unusable.

Furthermore, while all nuclear reactors are inherently dangerous, some reactors are more dangerous than others. The reactor that the DOE proposes to restart is a sodium cooled "fast-breeder." Fast Breeder reactors are even more dangerous than the 103 light water reactors that are currently operating in the U.S. for several reasons:

- The FFTF uses sodium rather than water to cool the reactor. Sodium burns when exposed to air and explodes upon contact with water.
- Rapid increases in power, like the power excursion that blew apart the Chernobyl reactor, occur much more rapidly in fast breeder reactors than they do in conventional light water reactors.
- "Fast breeder" reactors are particularly susceptible to power instability due to the fact that they operate at higher power density.

The U.S. experience with "fast breeder" reactors argues against restarting the Fast Flux Test Facility. In November 1955, the first U.S. "power reactor" ever to produce electricity, the EBR-1, (experimental breeder reactor) melted down during testing. Rather than scrambling the reactor, the operator mistakenly hit the button for slow shut down, and in the few seconds it took to press the correct button, approximately half of the reactor core melted down. The public was not made aware of this meltdown until Lewis Strauss, head of the Atomic Energy Commission, and the man who claimed nuclear power would be "too cheap to meter," was confronted by the Wall Street Journal and had to admit his ignorance of the accident.

Not to be dissuaded by the meltdown of the EBR-1, The Power Reactor Development Corporation, a consortium of 35 utilities headed by Detroit Edison forged ahead with the first commercial fast breeder reactor. The Fermi reactor was to be a scaled up version of the EBR-1 with a small dense core made up of 14,700 uranium fuel pins. On October 6, 1966 the Fermi reactor also melted down.

The U.S. is not the only country to experience accidents with fast breeder reactors:

- France's Superphenix was permanently shut down in 1987 after leaking 20 tons of sodium. The \$10 billion dollar reactor only operated for 278 days in its 11-year history.
- The Japanese Monju fast breeder reactor was shutdown in 1995 after three tons of sodium leaked, causing the reactor to over heat and burn holes in cooling pipes. In the aftermath of the accident, the plant manager was so distraught that he committed suicide.

**336-5
(Cont'd)**

336-6

Response to Commentor No. 336

would be expected to result from implementation of Alternative 1, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small. Prior to an FFTF restart, a revised safety analysis report and a probabilistic risk assessment would be prepared which would address any changes in plant configuration, operating conditions, and procedures. The revised safety analyses would be subjected to a thorough independent review process.

Response to Commentor No. 336

Commentor No. 336: Joan Claybrook (Cont'd)

➤ Both the British and the Germans have terminated their breeder reactor programs.

The DOE's misguided attempt to re-start this dangerous nuclear reactor or its proposed alternatives of new reactors and accelerators is little more than a welfare program for the nuclear establishment. Restarting the FFTF will create a new nuclear waste stream at the Hanford reservation at a time when the DOE's efforts should be focused on the dangerous mess they've already created.

336-6
(Cont'd)

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336-3

Commentor No. 337: William Heaston

NI PEIS Toll-Free Telephone

8/31/00

Dr. William Heaston
602-977-9178

Please restart the FFTF.

337-1

Response to Commentor No. 337

337-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 338: Anonymous

Public Hearing Evaluation Form

Please place a check mark in the box next to the public hearing attended:

- ☐ August 22, 2000
American Museum of Science and Energy
300 South Tulane Avenue
Oak Ridge, Tennessee 37830
- ☐ August 25, 2000
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Hood River Inn
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- ☒ August 29, 2000
Oregon Museum of Science and Industry
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- ☐ August 30, 2000
Washington State Convention and Trade Center
800 Convention Place
Seattle, Washington 98101
- ☐ August 31, 2000
Best Western Tower Inn and Conference Center
1515 George Washington Way
Richland, Washington 99352
- ☐ September 6, 2000
Crystal Gateway Marriott
1700 Jefferson Davis Highway
Arlington, Virginia 22202

Please circle the appropriate number:

	Very Good	3	2	Poor
Your Level of Knowledge about the PEIS before the Hearing	5	4	3	2
Your Level of Knowledge about the PEIS after the Hearing	5	4	3	2
Time and Date of Hearing	5	4	3	2
Location of Hearing	5	4	3	2
Registration Process	5	4	3	2
Clarity of Displays and Handouts	5	4	3	2
Clarity of Presentations	5	4	3	2
Relevancy of Issues and Concerns Addressed	5	4	3	2
Opportunities for Discussion	5	4	3	2
DOE Officials' Willingness to Listen	5	4	3	2
Knowledge/Responses from Staff Attending	5	4	3	2

How could the public hearing format and materials be improved? *The lottery didn't work in Portland. The PEIS is a poor piece of work - independent. You folks don't know your answers to questions - Shame on you since you created it.*

Was the public hearing helpful to you?

Only to hear each other speak on so frequently.

Please continue on the other side if you run out of space. Please return your completed evaluation form to the registration desk or mail or fax to the address below.

THANK YOU - YOUR FEEDBACK IS IMPORTANT TO US

For more information contact: Colette E. Brown, NE-SO
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free telephone: 1-877-562-4593 • Toll-free fax: 1-877-562-4595
E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/27/00

Response to Commentor No. 338

338-1

338-1: This NI PEIS has been prepared in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR Parts 1500 through 1508 and 10 CFR Part 1021), respectively. The environmental impacts of reasonable alternatives to fulfill the requirements of the missions were disclosed and evaluated in the NI PEIS. Further, DOE evaluated each environmental resource area in a consistent, unbiased manner across all the alternatives to allow a fair comparison among the various alternatives. DOE made every effort to obtain, analyze, and disclose all required information to make a decision on expanding nuclear infrastructure.

Commentor No. 339: Anonymous

Response to Commentor No. 339

Public Hearing Evaluation Form

Please place a check mark in the box next to the public hearing attended:

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| <input type="checkbox"/> August 22, 2000
American Museum of Science and Energy
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Oak Ridge, Tennessee 37830 | <input type="checkbox"/> August 30, 2000
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800 Convention Place
Seattle, Washington 98101 |
| <input type="checkbox"/> August 25, 2000
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475 River Parkway
Idaho Falls, Idaho 83402 | <input type="checkbox"/> August 31, 2000
Best Western Tower Inn and Conference Center
1515 George Washington Way
Richland, Washington 99352 |
| <input type="checkbox"/> August 28, 2000
Hood River Inn
1108 E. Marina Way
Hood River, Oregon 97031 | <input type="checkbox"/> September 6, 2000
Crystal Gateway Marriott
1700 Jefferson Davis Highway
Arlington, Virginia 22202 |
| <input checked="" type="checkbox"/> August 29, 2000
Oregon Museum of Science and Industry
1945 SE Water Avenue
Portland, Oregon 97214 | |

Please circle the appropriate number:

	Very Good	Good			Poor
Your Level of Knowledge about the PEIS before the Hearing	5	4	3	2	1
Your Level of Knowledge about the PEIS after the Hearing	5	4	3	2	1
Time and Date of Hearing	5	4	3	2	1
Location of Hearing	5	4	3	2	1
Registration Process	5	4	3	2	1
Clarity of Displays and Handouts	5	4	3	2	1
Clarity of Presentations	5	4	3	2	1
Relevancy of Issues and Concerns Addressed	5	4	3	2	1
Opportunities for Discussion	5	4	3	2	1
DOE Officials' Willingness to Listen	5	4	3	2	1
Knowledge/Responses from Staff Attending	5	4	3	2	1

How could the public hearing format and materials be improved? *Drop the bull shit. Admin. Please not the best chance to create isotopes - admit that health records have been falsified.*

Was the public hearing helpful to you? *Yes - I allowed me to connect with others against NRE*

Please continue on the other side if you run out of space. Please return your completed evaluation form to the registration desk or mail or fax to the address below.

THANK YOU -- YOUR FEEDBACK IS IMPORTANT TO US

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U.S. Department of Energy • 19921 Germantown Road • Germantown, MD 20874
Toll-free telephone: 1-877-565-4593 • Toll-free fax: 1-877-562-4592
E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/27/00

339-1: Although a few radioisotopes can be produced by separating them from existing stockpiles of transuranic materials or other long-lived radioisotopes, the two primary means for producing radioisotopes is through the use of nuclear reactors or particle accelerators.

339-2: DOE does not falsify health records. Human health effects information presented in the NI PEIS is based on data collected at the candidate sites: ORR, INEEL, and Hanford. Data used to quantify offsite consequences were extracted from reports (available to the public) concerned with operational releases at candidate facilities. (See for example, DOE/RL-99-41, Radiological Air Emissions Report for the Hanford Site Calendar Year 1998).

These reports are generated in response to DOE's requirements for radiological control. DOE Order 231.1, Environment, Safety, and Health Reporting, requires an annual radiation dose summary that evaluates doses to members of the public and workers. DOE's radiological control requirements meet the legal requirements of 10 CFR 835. There are provisions for enforcement actions should the requirements of 10 CFR 835 not be met. In 1996, DOE established the DOE Radiological Health and Safety Policy (DOEP 441.1, April 26 1996). Accuracy of radiological records is among the goals of this policy: the policy states in part "Ensure radiological measurements, analyses, worker monitoring results and estimates of public exposures are accurate and appropriately made."

Commentor No. 340: Linda Parks

NI PEIS Toll_Free Telephone

8/30/00

Linda Parks
Walla Walla, WA
509_526_3387

I am a senior disabled person. I have no car to be able to make the meeting in Richland about restarting the Hanford reactor. However, I adamantly dislike the thought of restarting it. I am very much against restarting any nuclear reactors. Please make my feelings a part of the fight against restarting it. Thank you.

340-1

Response to Commentor No. 340

340-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

Commentor No. 341: Mike Kaiser

NI PEIS Toll-Free Telephone

8/31/00

Mike Kaiser
Benton City, WA
509_547_2911

I support the restart of FFTF for missions stated in the draft. I think that is the most viable option. Hope you consider that. Thank you.

341-1

Response to Commentor No. 341

341-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 342: Jim Dobson

NI PEIS Toll_Free Telephone

8/31/00

Jim Dobson
Seattle, WA
Also speaking for Sue Zigi

We emphatically want to say no against
reopening the FFTF nuclear reactor in Hanford.
It is stupid, dumb, and immoral. Thank you.

342-1

Response to Commentor No. 342

342-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

Commentor No. 343: Doug Palmricky

NI PEIS Toll-Free Telephone

8/31/00

Doug Palmricky
Kennewick, WA
509_586_0567

I would like to support FFTF medical isotope production. It is a terrific facility out there, should be, and a lot of money has been spent on it. I think we should utilize all the things that are there for that particular endeavor.

343-1

Response to Commentor No. 343

343-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 344: Barb Hosford

NI PEIS Toll_Free Telephone

8/31/00

Barb Hosford
Hood River, OR
541_386_7020

I would like to call and voice my concerns against the startup of Hanford. And if it could be logged on as a vote I would consider that a positive thing. I am very alarmed that this could possibly start up again. So I am totally against it.

344-1

Response to Commentor No. 344

344-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

Commentor No. 345: Anonymous

Response to Commentor No. 345

Public Hearing Evaluation Form

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| <input type="checkbox"/> August 25, 2000
Westcoast Idaho Falls Hotel
475 River Parkway
Idaho Falls, Idaho 83402 | <input type="checkbox"/> August 31, 2000
Best Western Tower Inn and Conference Center
1515 George Washington Way
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Hood River Inn
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Arlington, Virginia 22202 |
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Portland, Oregon 97214 | |

Please circle the appropriate number:

	Very Good				Poor
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Your Level of Knowledge about the PEIS after the Hearing	5	4	3	2	1
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DOE Officials' Willingness to Listen	5	4	3	2	1
Knowledge/Responses from Staff Attending	5	4	3	2	1

How could the public hearing format and materials be improved? *You need to have DOE representatives who can convey the information in plain English. The use of jargon & acronyms is confusing - perhaps purposefully so?*

Was the public hearing helpful to you? *No, it's a waste of time. I am glad that DOE knows that I oppose restart & FTF and know that they are not meeting cleanup requirements. I am glad after years and have yet to feel their meetings are helpful. Only to my失望 as a citizen responding to our comments is your duty as government!*

Please continue on the other side if you run out of space. Please return your completed evaluation form to the registration desk or mail or fax to the address below.

THANK YOU - YOUR FEEDBACK IS IMPORTANT TO US

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E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/27/00

345-1: DOE notes the commentor's concerns and agrees that information presented at public hearings should be verbally conveyed and written in plain language. This is in accordance with the spirit of the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively) which stipulate that NEPA documents be written in plain language. It is DOE's public participation policy to verbally present information and to provide handouts and other informational materials that are easily understood by the public and which avoid the use of jargon. The use of acronyms is avoided to the extent possible or they are spelled out the first time used, and essential technical terms or concepts are defined through the use of more common terms of understanding. Also, DOE made every effort to respond to each question asked during the public hearings. DOE is committed to the continual improvement of the public participation process and regrets if any member of the public felt that any information presented at the public hearings, either verbally or in written form, was unclear or otherwise unhelpful, or that any question went unanswered.

345-2: DOE notes the commentor's opposition to Alternative 1, Restart FTF.

345-3: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. A Tri-Party Agreement change was made to place the milestones for FTF's permanent deactivation in abeyance until the DOE reaches a decision on whether the facility will be used to meet mission needs. Public meetings were held on this formal milestone change.

Commentor No. 346: Anonymous

Public Hearing Evaluation Form

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- | | |
|--|--|
| <input type="checkbox"/> August 22, 2000
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Idaho Falls, Idaho 83402 | <input type="checkbox"/> August 31, 2000
Best Western Tower Inn and Conference Center
1515 George Washington Way
Richland, Washington 99352 |
| <input type="checkbox"/> August 28, 2000
Hood River Inn
1108 E. Marina Way
Hood River, Oregon 97031 | <input type="checkbox"/> September 6, 2000
Crystal Gateway Marriott
1700 Jefferson Davis Highway
Arlington, Virginia 22202 |
| <input type="checkbox"/> August 29, 2000
Oregon Museum of Science and Industry
1945 SE Water Avenue
Portland, Oregon 97214 | |

Please circle the appropriate number:

	Very Good				Poor
Your Level of Knowledge about the PEIS before the Hearing	5	4	3	2	1
Your Level of Knowledge about the PEIS after the Hearing	5	4	3	2	1
Time and Date of Hearing	5	4	3	2	1
Location of Hearing	5	4	3	2	1
Registration Process	5	4	3	2	1
Clarity of Displays and Handouts	5	4	3	2	1
Clarity of Presentations	5	4	3	2	1
Relevancy of Issues and Concerns Addressed	5	4	3	2	1
Opportunities for Discussion	5	4	3	2	1
DOE Officials' Willingness to Listen	5	4	3	2	1
Knowledge/Responses from Staff Attending	5	4	3	2	1

How could the public hearing format and materials be improved? _____

Was the public hearing helpful to you? Not very. I believe the push for more isotopes is not a viable way to cure cancer. It creates good paying jobs. There is more cancer created than cured from Hanford.

Please continue on the other side if you run out of space. Please return your completed evaluation form to the registration desk or mail or fax to the address below.

THANK YOU - YOUR FEEDBACK IS IMPORTANT TO US

For more information contact: Colette E. Brown, NE-50
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free telephone: 1-877-562-4593 • Toll-free fax: 1-877-562-4592
E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



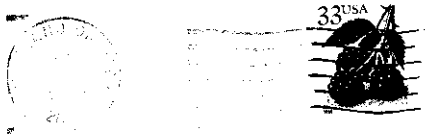
7/27/00

Response to Commentor No. 346

346-1: DOE notes the commentor's position. Public hearings are critical to the public participation process and provide valuable information to DOE. However, in ongoing clinical testing, therapeutic radioisotopes have proven effective in treating cancers and other illnesses while minimizing adverse side effects, making their use an attractive alternative to traditional chemotherapy and radiation treatments.

346-2: The NI PEIS provides an estimate of the potential human health impacts associated with a range of reasonable alternatives considered for the production of radioisotopes for medical and industrial uses, research and development, and as heat sources for radioisotope power systems (see Sections 1.2 and 2.5 of Volume 1). The methodology used in the analysis of health effects, which is detailed in Appendixes H through J, is based upon our current knowledge of the health impacts that may result from exposure to low doses of ionizing radiation and chemical agents. Sections 4.3 through 4.6 of Volume 1 provide the results of the evaluation of potential health impacts that would be expected to result from implementation of any of the reasonable alternatives (some of which include use of facilities at Hanford), including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with Hanford operations in support of the nuclear infrastructure would be small.

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214



Ms. Colette Brown
U.S. Department of Energy
Office of Space and Defense Power Systems
NE-50
19901 Germantown Road
Germantown, Maryland 20874-1290

[illegible]

I am opposed to restart of the Fast Flux Test Facility reactor because:

They have not yet cleaned up the pollution from prior years. Do not start anything new until you can prove that you can reuse it safely.

Name Paul R. Metzger
Address 5125 SW Evelyn St
City, state Portland, OR Zip 97219

347-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

347-2: DOE notes the commenter's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

347-3: FFTF can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small.

Response to Commentor No. 349



00794 2207

I am opposed to restart of the Fast Flux Test Facility reactor because:

Name BARBARA KINNEAR-WILLIAMS
Address 1105 NW 79TH CIRCL
City, state VANCOUVER WA Zip 98665

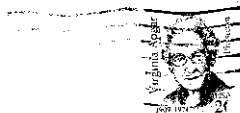
349-2

349-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

349-2: FFTF can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected from implementation of Alternative 1, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small.

Commentor No. 350: John Jay Fichter

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214



Ms. Colette Brown
U.S. Department of Energy
Office of Space and Defense Power Systems
NE-50
19901 Germantown Road
Germantown, Maryland 20874-1290

20874-1290

**Public comment on Nuclear Infrastructure Draft Programmatic
Environmental Impact Statement (NI PEIS)**

I am opposed to restart of the Fast Flux Test Facility reactor because:

- 1) The money should be spent to clean up Hanford
- 2) It's dangerous
- 3) the Hanford Reach is National Monument
- 4) We don't need it

Name John Jay Fichter
Address 1135 SE 95th Avenue
City, state Portland OR 97215 Zip _____

Response to Commentor No. 350

350-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

350-2: The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

350-3: FFTF can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected from implementation of Alternative 1, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small.

350-4: On June 9, 2000, the President issued a proclamation that established the 78,900 hectares (195,000 acres) Hanford Reach National Monument (65 FR 37253). The proclamation recognized the unique character and biological diversity of the area, as well as its geological, paleontological, historic and archaeological significance. However, it should be noted that the 400 Area, within which the FFTF is located, does not fall within the monument boundaries and its operation would not impact the values for which the monument was established. If fact, as shown on Figure 3-6 of the NI PEIS, the 400 Area is located within an area that has been designated as industrial. The Hanford Reach National Monument is discussed in Section 3.4.1.1.1 of the NI PEIS.

350-1

350-2

350-3

350-4

350-5

Commentor No. 350: John Jay Fichter (Cont'd)

Response to Commentor No. 350

- 350-5:** DOE notes the commentor's opposition to the use of FFTF for the expansion of its nuclear facility infrastructure. Consistent with its mandates under the Atomic Energy Act, DOE seeks to maintain and enhance its infrastructure for the purposes of addressing three primary needs:
- 1) to support the need for increased domestic production of isotopes for medical, research, and industrial uses, as initially identified by a panel of experts in the medical field and reaffirmed by the Nuclear Energy Research Advisory Committee;
 - 2) to support future NASA space exploration missions by re-establishing a domestic capability to produce plutonium-238, a fuel source that is required for deep space missions and which the U.S. has no long-term, assured supply; and
 - 3) to support civilian nuclear research and development needs in order to maintain the clean, safe, and reliable use of nuclear power as a viable component of the United States' energy portfolio. Section 1.2 of Volume 1 was revised to clarify the purpose and need of the proposed action.

351-2: DOE notes the commentor's views.

Response to Commentor No. 352

[illegible]

I am opposed to restart of the Fast Flux Test Facility reactor because:

I am opposed to restart of the Fast Flux Test Facility reactor because:

Government has not shown the ability to deal with nuclear power & the radiation it produces we do not wish to leave nuclear waste for our children

Name James F Ed Hemmingson

Address 3440 NW Eagle View

City, state Albany, OR Zip 97321

352-1

352-1: DOE notes the commenter's opposition to Alternative 1, Restart FFTF.

352-2

352-2: DOE notes the commentor's concern regarding waste generation. It should be noted that nuclear power generation is not within the scope of the NI PEIS. The NI PEIS does address the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed actions for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and appropriate DOE orders.

Commentor No. 355: Katie Bailey

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214



Ms. Colette Brown
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0474+1207

**Public comment on Nuclear Infrastructure Draft Programmatic
Environmental Impact Statement (NI PEIS)**

I am opposed to restart of the Fast Flux Test Facility reactor because:

*of concerns for safety of neighboring area
and possible movement downstream the
Columbia*

*Also hasn't Chernobyl taught you
that whatever we might blow up over there just
blow back over here? (with the wind)*

Name *Katie Bailey*
Address *P.O. Box 1396*

City, state *Truslow OR 97062* Zip *97062*

355-1

355-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

355-2

355-2: Hanford facilities can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with Alternative 1 would be small.

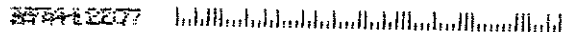
FFTF operated for more than 10 years with no discernible impact to the environment. Air emissions from the facility were in accordance with applicable permit and regulatory requirements and were well below federal and state air standards. Wastewater discharges were also in accordance with applicable permit and regulatory requirements. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner in compliance with applicable Federal and state laws and appropriate DOE orders.

Commentor No. 356: Joanna Bailey

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214



Ms. Colette Brown
U.S. Department of Energy
Office of Space and Defense Power Systems
NE-50
19901 Germantown Road
Germantown, Maryland 20874-1290



**Public comment on Nuclear Infrastructure Draft Programmatic
Environmental Impact Statement (NI PEIS)**

I am opposed to restart of the Fast Flux Test Facility reactor because:

*It will contaminate our
air & soil as in the past,
& don't give the American people
your untruthful rhetoric.*

Name Joanna Bailey
Address 2837 NE 14th Ave
City, state Portland, OR Zip 97212

Response to Commentor No. 356

356-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

356-2: The concerns expressed in the comment with respect to NI PEIS Alternative 1 are noted. FFTF operated for more than 10 years with no discernible impact to the environment. Air emissions from the facility were in accordance with applicable permit and regulatory requirements and were well below federal and state air standards. Wastewater discharges were also in accordance with applicable permit and regulatory requirements. Wastes generated were managed in a safe and environmentally protective manner in compliance with applicable federal and state laws and appropriate DOE Orders.

Restart and operation of the FFTF would result in small impacts to the biosphere. All air emissions and wastewater discharges to the environment would be in accordance with applicable permit and regulatory requirements. The releases of air pollutants and contaminated liquids associated with FFTF operations are addressed in detail in Section 4.3 of the NI PEIS. The release of criteria air pollutants would result in concentrations well below Federal and state air standards (Table 4-13); the releases of radioactivity and hazardous chemicals into the environment would have a negligible effect on human health (Tables 4-17 and 4-19); and no discernible impacts to groundwater or surface water quality would result from water discharges (Section 4.3.1.1.4).